

Freer Gallery of Art

Art of the Arab World

Esin Atıl



Smithsonian Institution Washington D.C. 1975

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1975

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This exhibition, 'Art of the Arab World', and its catalogue carry out two of the cherished desires of the founder of the Freer Gallery of Art, Charles Lang Freer. They are the preservation for and presentation to the people of the United States and the world of objects of the highest aesthetic standards and the research and publication of scholarly findings so that all may learn of the inspired creativity of mankind. In contrast to many collectors of his age, Mr. Freer did not seek to amass objects with quantity and fashion his goals. Instead he collected in areas not yet in vogue with the avowed purpose that the works of art he possessed serve to awaken our people to the importance of the Eastern civilizations as cradles of learning and beauty.

It was late in his life that he turned to the vast reaches of Islam and the Arab peoples who had greatly enriched our world with the principles of this inspired faith. They had also expanded our horizons and contributed to humanity's development through scientific invention, an art of healing, mathematics, literature, and art of great beauty. It is to art that this exhibition is devoted. In truth it is difficult for an art historian to think of that which is beautiful and graceful, delicate yet strong and eternal, without the 'arabesque' coming to mind. How apt that this aesthetic device of refined, rhythmical, intertwined flowing lines epitomizes the spirit of the Arab world. The simple elegance of Arabic, written with beautiful calligraphic style, unites religion to art and art to the people of these lands. The sacred word of Islam is most ever present in Arabic art, and even when objects for secular use were fashioned, Islam's influence was felt through the use of calligraphy and line.

Arabic art has rarely been presented in our American institutions. We are honored at being entrusted with a small portion of the cultural heritage of these noble peoples. The Arabs were

noted teachers, and it is our hope that through this exhibition we may emulate them, and a window will be opened encouraging our understanding of a major area of the Eastern world.

The Freer Gallery of Art is deeply grateful to Dr. Esin Atıl, our Associate Curator of Near Eastern Art, for her scholarship and organization of the exhibition. We hope that this catalogue, over which she so lovingly labored, will serve as an important addition to the literature on Arabic art. Her effort, as well as that of the superb photographic staff of the Freer Gallery of Art, would have meant little had we not received a very generous grant from Mobil Oil Corporation and the services of Derek Birdsall, a designer of great distinction. To these people and that organization, we are most grateful. To those who wrote and made the objects now before us, we are humble.

Harold P. Stern
Director

Early Abbasid and Tulunid Art

The study of Islamic civilization reveals an extraordinary feature in which religious concepts became the determining factors in world political events. Yet it would be valid to state that the impact of Islam was not based on physical domination but on the cultural power of its teaching. It was the universality of this teaching which determined its speedy and far-flung acceptance.

The early history of Islam shows the transformation of an Arab sect into an empire which imposed its own qualities upon various civilizations. Needless to say, Arab cultural history predates Islam, but with the coming of the Prophet Muhammad a new kind of community crystallized and a new conception of the world emerged which found expression both in language and the arts.¹

Muhammad, born into a prominent family in Mecca, was a political leader, administrator and legislator as well as a prophet. He received his call in 610 when he was about 40 years old. The Prophet and his small group of followers were not immediately accepted in Mecca, and migrated to Medina in 622. This famous flight, called the *hijra*, is considered as the beginning of the Muslim era. Eventually Mecca was subjugated and at the time of Muhammad's death in 632 most of the Arabian Peninsula had converted to Islam.

The four immediate followers of the Prophet assumed the title of caliph which literally means "successor." Abu Bakr, Umar, Uthman and Ali were related to Muhammad either by blood or through marriage. During the period of the orthodox caliphs (632–661), the Arab armies won phenomenal victories, defeating the Byzantines in Syria, Palestine and Egypt as well as the Sasanians in Iran and Irak. The frontiers of Islam extended from Anatolia and the Caucasus to Tripoli on the Mediterranean, incorporating the entire Near East up to Transoxiana.

The golden age of Islamic conquest was not without internal strife. Ali, the last of the orthodox caliphs, was challenged by Muawiya, the governor of Syria. The latter evolved as the victor and established the Umayyad dynasty (661–750) upon the death of Ali. A group of Muslims, the Shiites, claimed Ali's descendants as the rightful caliphs, and broke away from the orthodox faithful, the Sunnites.

Under the Umayyads Islam witnessed its second great period of expansion. In 711 Tarik crossed the straits named after him, the Jabal-i Tarik, or Gibraltar. The Arab armies swept through Spain, penetrating the Pyrenees and raiding France. In 717 the Arabs attempted to capture Constantinople, the capital of the Byzantine Empire. During the early decades of the 8th century, Khorasan and Transoxiana were taken and Islam was implanted in India.

The frontiers of the Muslim world now extended from the Atlantic Ocean to the Indus River.

The Umayyads, who ruled from Syria, were in direct contact with the late classical tradition which prevailed in that region. The impact of this tradition as well as that of Sasanian Iran and Central Asia can be observed in the arts of the period.

The few surviving examples of Umayyad ceramics, metalwork and glass are either utilitarian or strongly influenced by Sasanian or Roman examples.² The greatest achievement of the period is seen in religious and secular architecture and decoration.

The earliest monumental Islamic building, the Dome of the Rock in Jerusalem, completed in 691 by Caliph Abd al-Malik, is the most profound statement of the political and religious victory of Islam.³ The mosaics that adorn this spectacular building symbolize the triumph of the Umayyads while the Koranic inscriptions, encircling the sacred rock, profess the fundamental principles of Islam and the universality of the mission of Muhammad. The Byzantine and Sasanian traditions of the Near East can be detected in the form and decoration of the Dome of the Rock, yet what evolves through their synthesis is a uniquely Islamic building, commemorating the dawn of a new era and civilization.

The mosaics, paintings, stone and stucco carvings adorning the secular architecture of the Umayyads reveal an extraordinary range of motifs and themes. Eighth-century royal baths and palaces, such as Kusayr Amra, Khirbat al-Mafjar, Kasr al-Hayr East and West, and Mschatta are decorated with a profusion of floral and geometric motifs in conjunction with figural compositions which depict courtly activities, astrological subjects or purely ornamental themes.⁴

The Umayyads adopted the vocabulary of the diverse cultures to which they were exposed. Through their fusion, they created original forms of art which reflected the aims, achievements and tastes of the newly-founded society. The civilization of Islam began to take shape under their rule with Arabic becoming the official language of the Muslim world.

The vast Umayyad Empire was overthrown by a revolution which began in Khorasan, led by Abu Muslim. The caliphate was taken over by the Abbasids who exterminated the Umayyad family. The grandson of the last caliph escaped to North Africa and founded the Umayyad line in Spain, which ruled up to the 11th century.

The Abbasids (750–1258) moved the capital from Syria to Baghdad which was founded by Caliph al-Mansur in 762. During the early part of their reign, the frontiers of the world of Islam remained more or less intact with only two major campaigns

undertaken in Central Asia and Anatolia. In 751 the Arab armies subjugated the Chinese at the Battle on the Talas, securing the eastern provinces, and in 806 Caliph Harun al-Rashid defeated the Byzantines, advancing to Ankara.

Although theoretically the Abbasids ruled until 1258, when the Mongols sacked Baghdad and killed the last Abbasid caliph, their external and internal authority deteriorated around the 9th century. Arab domination gradually dissolved due to diverse regional and ethnic segments within the empire and the absence of a strong central government.

In the 3rd century after *hijra* the governors of the western and eastern provinces began to break away from the supremacy of Baghdad and to establish independent dynasties. The Turks, who were incorporated into the Abbasid military system and held major positions, also started to assert their influence. The Umayyads were already independent in Spain; the Aghlabids seceded Tunisia and Algeria; the Tulunids established their dynasty in Egypt and Syria; and a number of autonomous rulers, such as the Tahirids, Safarids and Samanids, controlled Iran. The Turkish guards were becoming a major threat. In order to prevent further conflict between them and the native population, the caliphs even moved the court to the newly-established city of Samarra situated north of Baghdad on the Tigris River.

The political power of the Abbasids, limited to Irak and undermined by their Turkish officers, was further reduced in the 10th century when Shiism began to triumph over Sunnism. The Fatimids seized the North African provinces and proclaimed themselves the rival caliphs in 909. The greatest blow came in 945 when the Shiite Buyids of Iran captured Baghdad. The Abbasid caliphs became mere puppets under the Buyid rule and, although relieved to some extent by the arrival of the Sunnite Seljuk Turks in 1055, their political power was not fully reinstated.

It was only in the 12th century when the Seljuk domination declined that the Abbasid caliphs were able to assert some independence, but this recovery was short-lived since the Mongols arrived on the scene soon after.

Even though the political unity of the world of Islam had disintegrated, *pax islamica* persisted through the strength of its faith and the Islamic system of administration. The first three centuries of Abbasid rule witnessed the full flowering of Arabic civilization: arts and science flourished, and economic and commercial progress prevailed throughout the land. Assimilating the late classical, Christian and Sasanian traditions of the Near East with those of Central Asia and, to some extent, of India, Islam fully developed its own artistic vocabulary.

Unfortunately, nothing remains today of the fabulous Abbasid city of Baghdad which was conceived as a circular complex with four axial gates.⁵ Samarra, occupied by the court between 836 and 892, has retained some of its monumental structures, including the colossal mosque of al-Mutawakkil which is the largest religious building in Islam. Without doubt the most significant complex in Samarra is the great palace of al-Mutasim, the Jausak al-Khakani, which is adorned with the finest examples of Abbasid wall paintings and stucco decoration.⁶

The artistic features developed in Irak were introduced to Egypt by the Tulunids (868–905) who were the first to set up an independent dynasty and obtain recognition from Baghdad. Ahmad ibn Tulun, the founder, was a Turkish soldier in the service of the caliphs. He was given the governorship of Egypt and Syria and eventually established his own autonomous regime. Egypt flourished under the brief rule of the Tulunids, and new structures were added to the capital at Fustat on the outskirts of modern Cairo. In the famous palace and mosque of Ahmad the impact of the imperial art of Irak is clearly visible.⁷

Singular elements taken from the repertoire of Coptic, Byzantine, Roman and Sasanian traditions can still be detected in the objects executed in this period. However, the final product is indigenously Islamic, representing the aesthetics of the society.

With the exception of Koranic manuscripts and ceramics, very few examples of early Abbasid and Tulunid art are in existence. The unique bronze incense burner and carved crystal flask included in the exhibition are among the exceptionally rare pieces which have survived (nos. 8 and 13).

The most significant expression of Islam is found in the Koran, the sacred book which is written in Arabic and contains the teachings of the Prophet. Through its content and language, the Koran is the singular indisputable power which unites the Muslims around the world. The art of the Koran combines two of the most outstanding contributions of the Arabs, namely calligraphy and an abstract form of decoration, commonly called the arabesque. Calligraphy, which perpetuates the word of God, developed into the highest form of art under the Muslims. Due to its sacred and mystical nature, it is employed on all forms of religious and secular architecture and art.⁸ A similar feature can be observed in the arabesque which, through the flow and interaction of its geometric, floral and vegetal components, creates a sense of infinity and omnipotence.⁹

According to tradition, sections of the Koran were written on loose leaves and placed between wooden boards during the lifetime of the Prophet. The holy book was first compiled by Abu

Bakr and codified by Uthman; the first Koranic illuminations are attributed to Ali, the last of the orthodox caliphs.

In the execution of the book the Arabs followed the classical model of a codex with bound quires. The earliest Korans contained parchment leaves placed between wooden boards which were covered with leather. The binding possessed flaps on three sides, enabling it to be closed like a box. The oldest bookbindings, found in Kairouan and dating from the 9th century, indicate that the leather coverings were adorned with blind tooling and stamping.¹⁰ In the later examples pasteboard replaced the wooden core and only the flap on the edge was retained (see no. 40).

The early Korans were oblong, or horizontal, in shape. They were written in various types of angular script, collectively called *kufic*, rendered in black or dark brown ink with small red dots used to indicate the diacritical marks.¹¹ There are also fragments of rare examples written in gold and silver on colored parchment.

Illuminated roundels separating the verses and marginal ornaments marking the fifth and tenth verses seem to have been employed in the formative years (no. 1). Decorative bands placed between the chapters initially contained only geometric or floral motifs (no. 2), but in time, the title of the chapter and the number of verses within that chapter began to be inserted into this zone (no. 3).

The next stage in Koranic decoration reveals full-page illuminations which were incorporated into the manuscripts. They appear alone or in pairs at the beginning or end of the books, or are placed between the chapters (nos. 4 and 5).

The illuminated chapter headings and full-page decorations generally combine a rectangular field with a rounded ornament which extends into the margin. This particular form has been related to the *tabula ansata* which are rectangular tablets with knob-shaped handles used to affix them to the walls. The tablets were employed for inscriptions in the Roman world as well as in pre-Islamic Egypt and South Arabia. The *tabula ansata* must have been well known in the Islamic period since it is represented in a 14th-century painting (no. 50).

A cursive style of writing called *naskhi* appears to have co-existed with the *kufic* script although the early Korans were written in the latter. In time, paper was used instead of parchment, the cursive style replaced the angular script, and the shape of the Korans changed from horizontal to vertical (no. 7). The earliest dated paper Koran was executed in 972 while the oldest surviving manuscript written in *naskhi* was completed in 1000–01. The latter work is also on paper and employs the vertical format.¹²

The precise dating of the early *kufic* Korans is impossible to determine since the great Arab libraries in Baghdad, Cairo, Medina and Tripoli were destroyed and complete manuscripts with proper colophons giving their date and place of execution were not preserved. Due to this reason, the identification of regional styles is also problematic. However, some indication for the dating of later Korans is provided by *wakf*, or donation, notices which are affixed to the manuscripts. These notices are useful in determining the *terminus ante quem* dates for a limited number of examples. The oldest dedication bears the date 866¹³. Three other manuscripts were donated in the 880s and eight have dated notices which fall within the first half of the 10th century.¹⁴

The most remarkable achievement of the period is the appearance of new techniques and themes on ceramics which were created for the urban dweller and reflect the taste of the people.

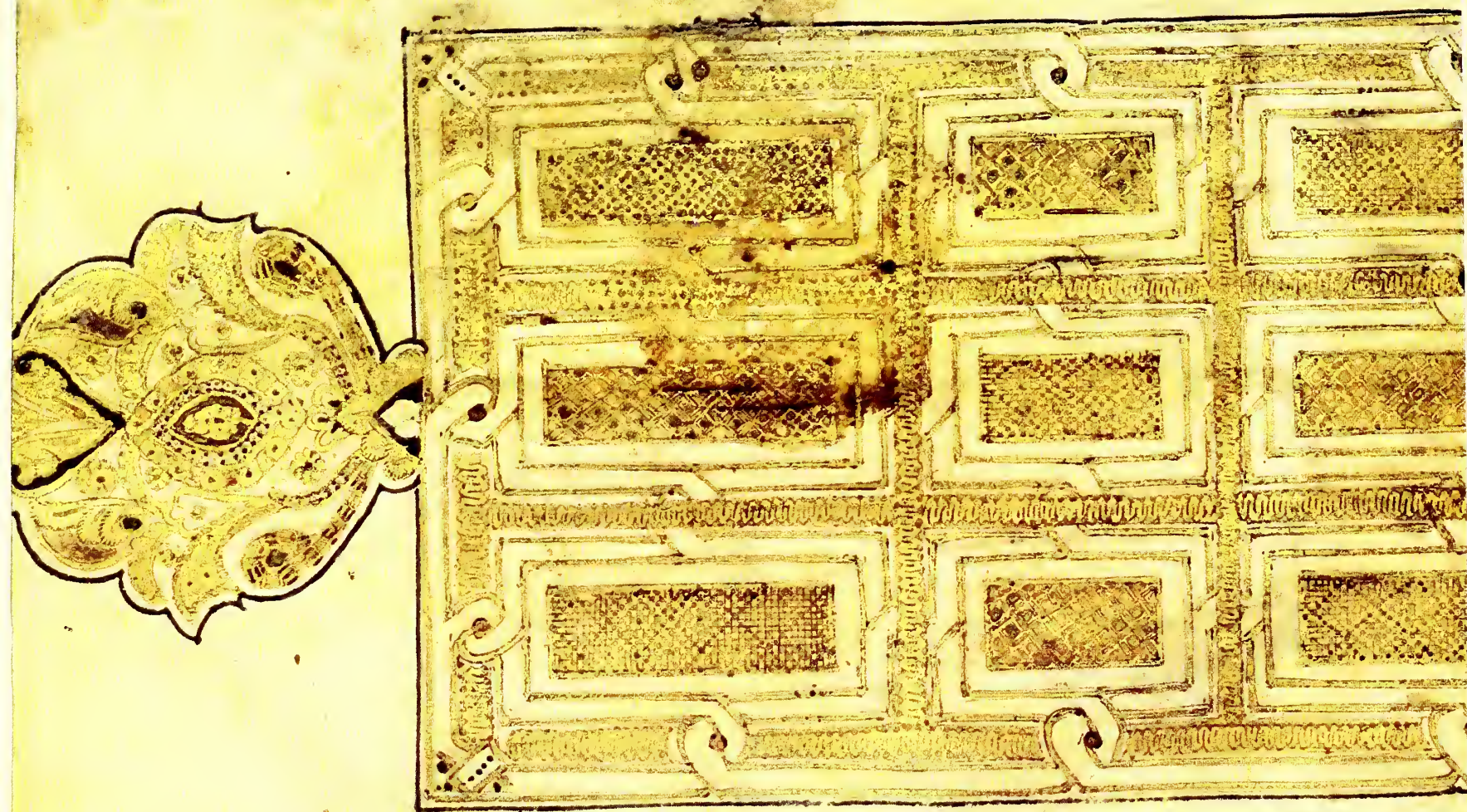
A group of wares reveals the impact of Chinese ceramics which were imported to the Near East. The earliest record of the arrival of Chinese wares occurs in an 11th-century record which states that a large shipment of porcelains was sent as a gift from the governor of Khorasan to Caliph Harun al-Rashid.¹⁵ The Muslim potters made imitations of the three-color-glazed T'ang pottery, adorned with green, yellow and purple glazes, often enhanced by incised decorations, as well as copies of the pure white wares. Even though the shapes and white glazes of the latter show a strong Chinese influence, their surface decorations employ the artistic vocabulary of the age. These tin-glazed wares are generally adorned with inscriptions or arabesques, rendered in blue, green or other colors (no. 9). This period also shows the first appearance of cobalt blue used as a pigment for decoration, a feature later employed by the celebrated blue and white Yüan and Ming porcelains of China.

A second innovation of the Abbasid potters was luster painting, the greatest creation of the Muslim artists. With this unique technique, a prosaic piece of earthenware was made to resemble a sumptuous object through the use of silver and copper oxides which produce shimmering metallic reflections. There exist few polychrome examples with yellow, green, brown and red lusters. However, due to the difficulty in execution, they are made in limited quantities and abandoned in favor of monochrome greenish gold or brownish gold lusters.

The early monochrome lusterwares rely on metal prototypes for their shape and decoration (no. 10). In time, luster began to be applied as a pigment on the tin-glazed white surface, depicting stylized animal and human figures (nos. 11 and 12).

Abbasid lusterwares were in great demand throughout the Islamic world. The technique appears to have originated in the capital of the Abbasids, as indicated by the excavations at Samarra.¹⁶ Luster painting was introduced to Egypt by the Tulunids and a number of fragments were discovered in Fustat.¹⁷

The characteristic features of the two types of Abbasid pottery represented in the exhibition include a cream-colored paste which is covered by an opaque white glaze. The decoration, either luster-painted or rendered in different colored pigments, is applied over the glaze and fixed during a second firing. Molded and carved pieces with relief decoration were also produced in this period. These wares are either unglazed or covered with monochrome glazes.¹⁸



بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ
الْحَمْدُ لِلَّهِ الَّذِي
خَلَقَ السَّمَوَاتِ وَالْأَرْضَ
وَالَّذِي يُضَوِّتُ النَّجْمَ
وَالَّذِي يُنَزِّلُ الْمَطَرَ
وَالَّذِي يُحْيِي الْمَوْتَى
وَالَّذِي يُحْيِي الْمَوْتَى

I
Two Pages from a Koran
Ink, color and gold on parchment
8th–9th century

Height: 24.5 cm. (9 $\frac{11}{16}$ in.)
Width (single folio): 33.0 cm. (13 in.)
37.6i(r)–37.6h(v)



These two pages belong to a fragmentary parchment Koran consisting of 32 folios which include verses 187 to 233 from the second chapter, Sura II, entitled *The Cow*. The manuscript is written in dark brown *kufic* script with red diacritical marks. Each folio contains five lines of text, adorned with gold verse stops.

The passages on display pertain to the obstacles and ordinances relating to pilgrimage, verses 196 to 199. At the end of the first line of the right folio

there is an illuminated *ashira* in the margin which indicates every tenth verse; it contains the word *mi'atani*, that is, "two hundred." Although the following verse is 197 in contemporary Korans, it is possible that the early versions used a different system of numbering the verses which may have varied from one region to another.

These folios are representative of the early Koranic manuscripts which employ horizontal formats; they are written in bold *kufic* script on

parchment and frequently use red diacritics. These Korans also have illuminated roundels indicating the end of each verse and marginal ornaments marking the fifth or tenth verses of the chapters, thus aiding the reader in locating the desired passages.

The identification of the provenance and the precise dating of the early *kufic* Korans are extremely difficult since many examples are fragmentary and there are no indications as to where or when they were copied. Even the

rare complete *kufic* Korans lack proper colophons which would normally give the date and place of execution with the name of the copyist.

بسم الله الرحمن الرحيم
الحمد لله الذي هدانا لهذا
ما كنا لنهتدي لولا أن هدانا الله



والله اعلم بالصواب
والله اعلم بالصواب
والله اعلم بالصواب
والله اعلم بالصواب
والله اعلم بالصواب
والله اعلم بالصواب
والله اعلم بالصواب
والله اعلم بالصواب



Page from a Koran
Ink, color and gold on parchment
8th–9th century

Height: 28.3 cm. (11 $\frac{1}{8}$ in.)

Width: 39.8 cm. (15 $\frac{11}{16}$ in.)

45.16v

This unusual folio uses dark brown *kufic* script and red diacritical marks, enclosed by white contour lines, against a parchment sheet which has been tinted blue. The four lines on top of the page belong to the last two verses of Sura XXI, entitled *The Prophets*. In the middle of the second line is a decorative rosette, separating the verses.

The illuminated horizontal band extending into the margins indicates the beginning of the next chapter, *The Pilgrimage*. The following seven lines contain the *basmala* and the first two verses of Sura XXII. The *basmala*, usually translated as “in the name of God, the Merciful, the Compassionate,” traditionally appears at the beginning of each Koranic chapter.

The illuminated band contains several borders framing a field adorned with a braided pattern which is painted in blue, green and red. A series of gold ovals breaks the field into 12 units. The band extends into the left margin with an architectural motif. On the right is a much larger marginal ornament conceived as a naturalistic tree with two pomegranates growing amidst green and red leaves.

The blue pigment on the parchment sheet has faded and the darker outlines of the neutral zone around the letters have virtually disappeared. The verse stops, which are indicated as three small diagonal strokes, are only faintly visible.

The decorative band contains no text and is employed as a separation between the two chapters. The fact that it does not possess the title of the following chapter indicates an early form of Koranic illumination.

Manuscripts using colored parchment are extremely rare. The most renowned example is a Koran which was written in gold ink on dark blue parchment and presented to the mosque in Mashhad by Caliph al-Mamun (813–837). Several folios from this work are now owned by diverse collections.¹⁹ There is also an unusual 8th- or 9th-century page written on red parchment in the Metropolitan Museum of Art, New York.²⁰

Height: 28.3 cm. (11 $\frac{1}{4}$ in.)
Width: 39.8 cm. (15 $\frac{1}{16}$ in.)
45.16v

This unusual folio uses dark brown *kufic* script and red diacritical marks, enclosed by white contour lines, against a parchment sheet which has been tinted blue. The four lines on top of the page belong to the last two verses of Sura XXI, entitled *The Prophets*. In the middle of the second line is a decorative rosette, separating the verses.

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Page from a Koran
Ink, color and gold on parchment
8th–9th century

Height: 23.8 cm. (9 $\frac{3}{8}$ in.)
Width: 35.5 cm. (13 $\frac{3}{8}$ in.)
30.60r

The *kufic* script written in dark brown ink with red diacritical marks is very similar to that seen in no. 1.

The first three lines on the folio belong to the last two verses of Sura XXXVIII, entitled *Sad*. A gold and green palmette separates the verses and six gold dots, forming a triangle, terminate the chapter.

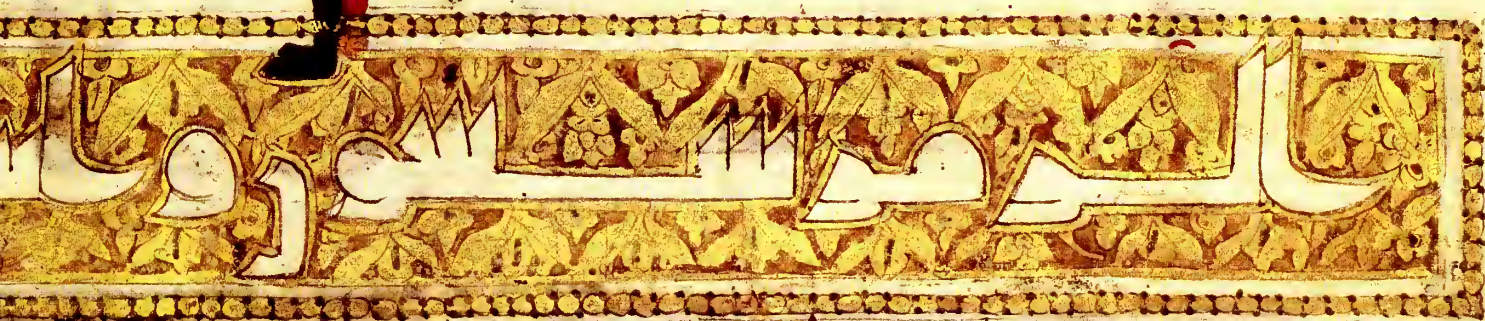
The magnificent illumination, which divides the folio and extends into the left margin, contains the title of the next chapter, *The Companies, Seventy-Two* (verses). It is followed by the *basmala* and the beginning of the first verse of Sura XXXIX.

The illuminated chapter heading has a beaded border framing a field which is adorned with gold leaves and blossoms. The title of the chapter is reserved in white and outlined in gold. The large palmette in the margin, composed of floral elements, is reminiscent of the Sasanian motifs seen in pre-Islamic art of Iran and Irak. Touches of green pigment appear in the borders around the horizontal band and the marginal ornament.

The development from a simple illuminated band separating the sections (as seen in no. 2) to one which includes the title of the ensuing chapter took place during early stages of manuscript production. This example belongs to one of the first Korans which show illuminated chapter headings.



بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



الحمد لله الذي هدانا لهذا

3
Page from a Koran
Ink, color and gold on parchment
8th–9th century

Height: 23.8 cm. (9½ in.)
Width: 35.5 cm. (13¾ in.)
30.60r

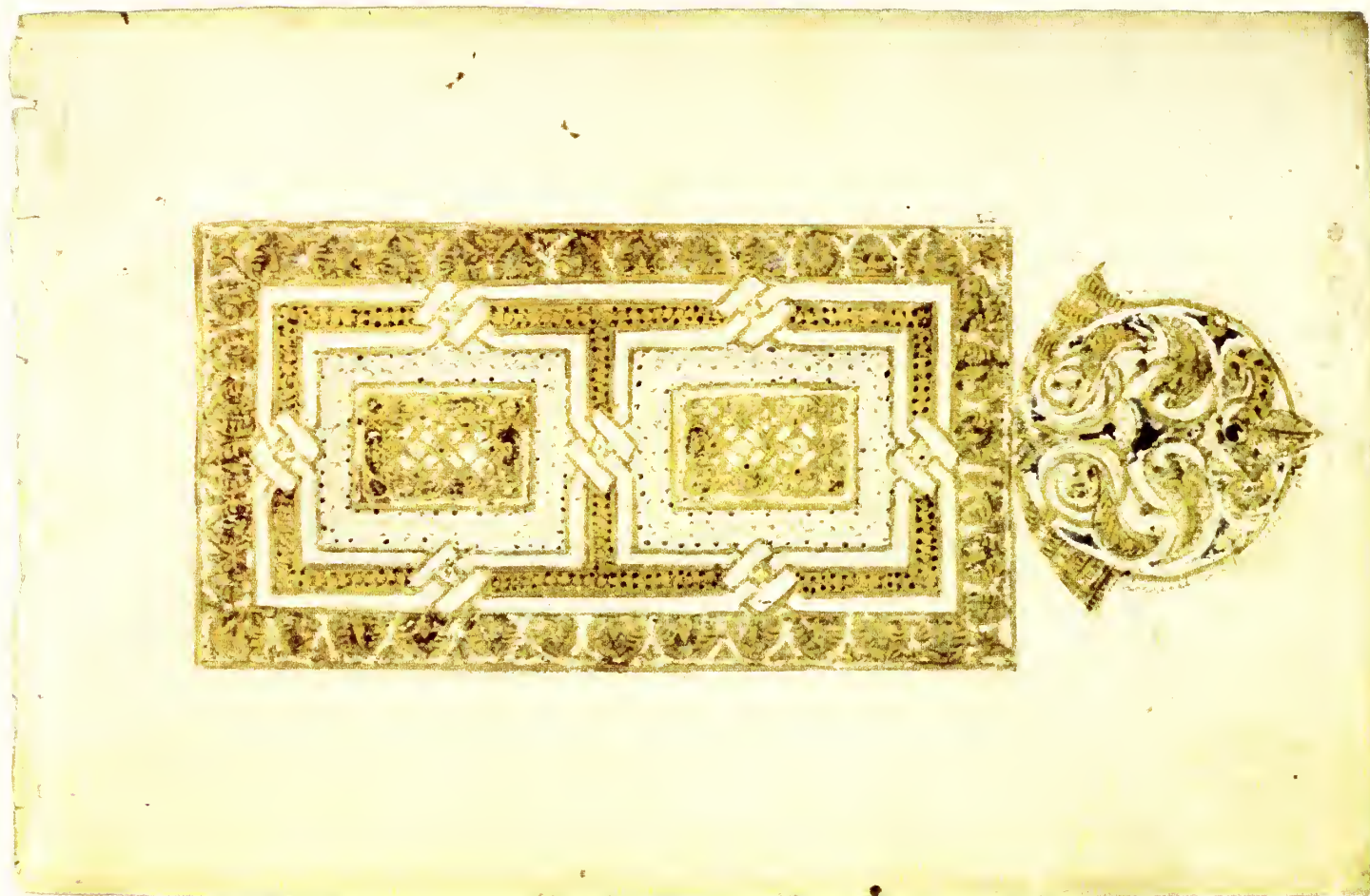
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4
Page from a Koran
Color and gold on parchment
9th century

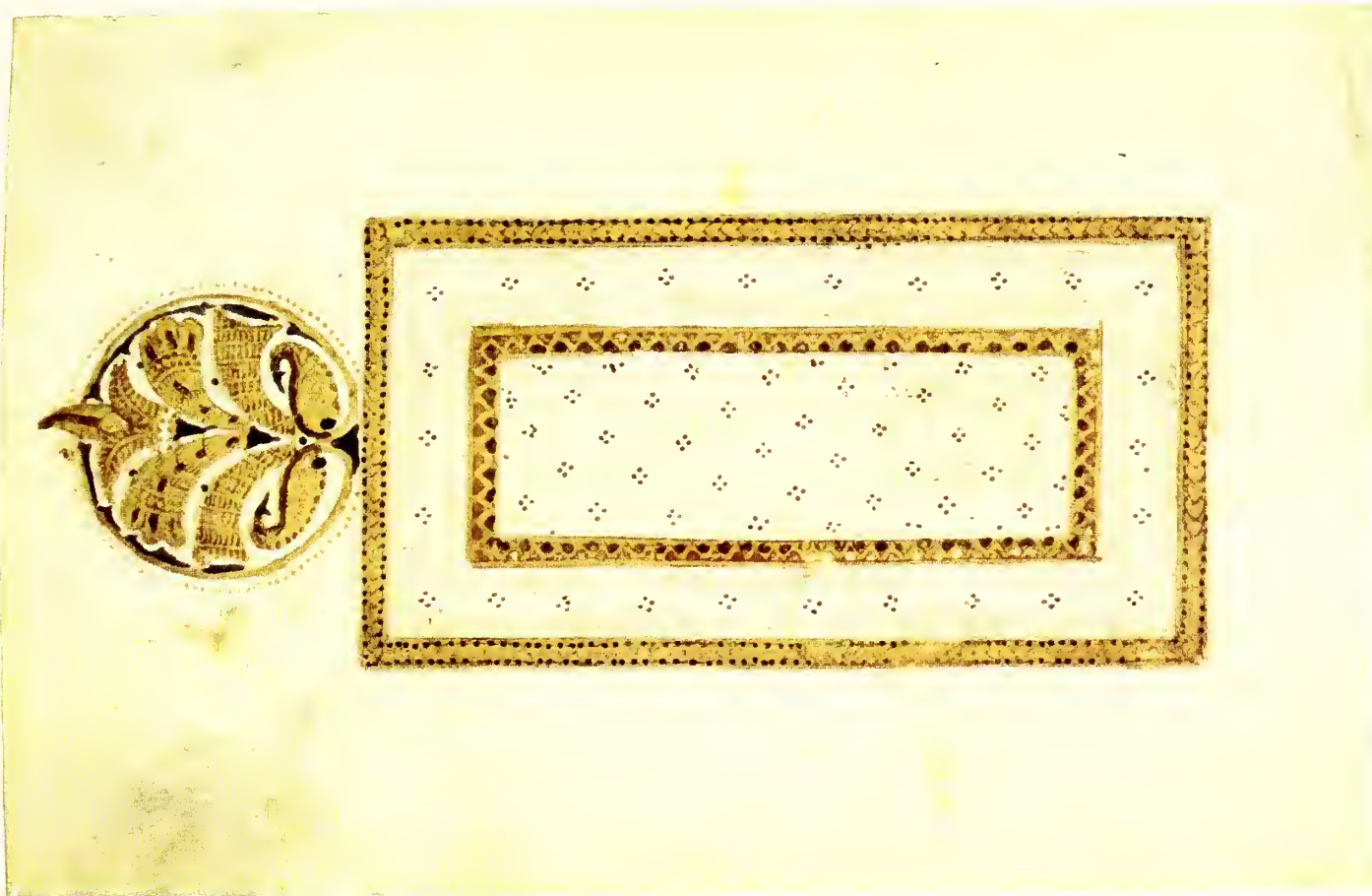
Height: 12.2 cm. ($4\frac{13}{16}$ in.)
Width: 19.0 cm. ($7\frac{1}{2}$ in.)
37.11v

A further development in manuscript decoration involves the appearance of full-page illuminations placed at the beginning or at the end of the chapters. The folio, which exemplifies this trend, is decorated on both sides with illuminated rectangular panels attached to large marginal ornaments.

The side on display (above left) was originally placed at the beginning of a chapter. The rectangular illumination is composed of a series of bands, framed by a border filled with palmettes. The central portion is divided into two units by a braid, encircled by thick

strips which intersect at intervals. Each of the two units is adorned with varying types of interlacing patterns. A circular ornament, decorated with stylized leaves and twisting stems, extends into the right margin. Aside from an abundant use of gold, touches of green, black and blue appear in the rectangular portion as well as in the marginal ornament.

The other side of the folio (above right) is less elaborately decorated and possesses an almost identical design. The rectangular panel shows two braided bands which enclose units



adorned with loosely executed floral scrolls. The palmette extending into the left margin is also less ornate.

Illuminated rectangular panels with rounded marginal ornaments found in early Korans are thought to be related to the tablets which were used for inscriptions in pre-Islamic times (see the tablet held by the scribe in no. 50).

The decoration of this folio combines the geometric motifs found in Eastern Christian manuscripts and mosaics with the winged palmette and fluttering ribbons or scarves seen in Sasanian art.

Page from a Koran
Color and gold on parchment
9th–10th century

Height: 20.5 cm. (8 $\frac{1}{16}$ in.)

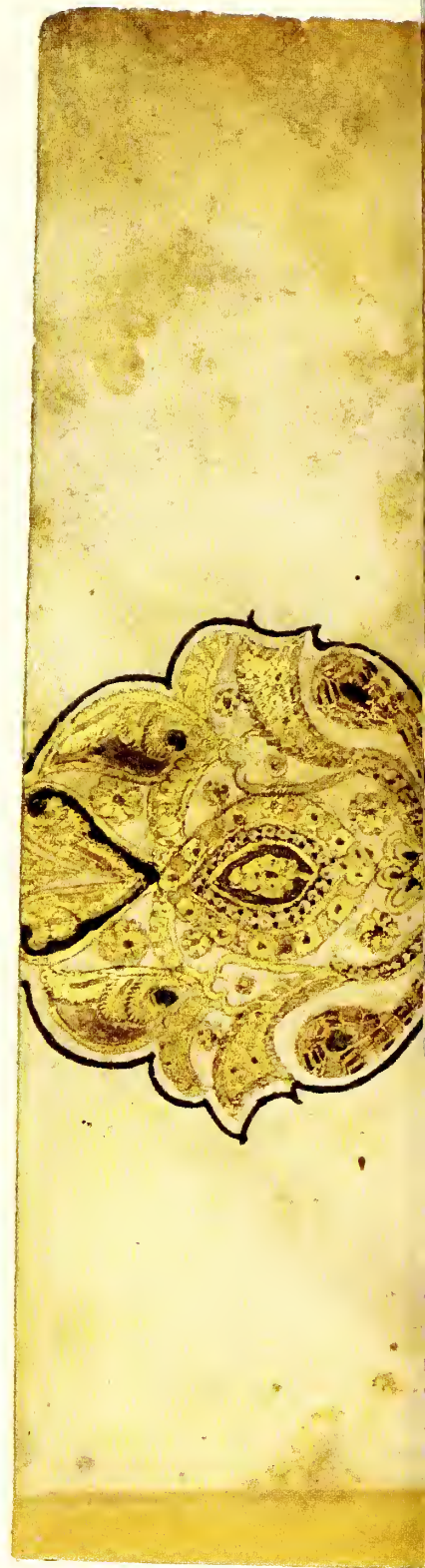
Width: 29.1 cm. (11 $\frac{1}{2}$ in.)

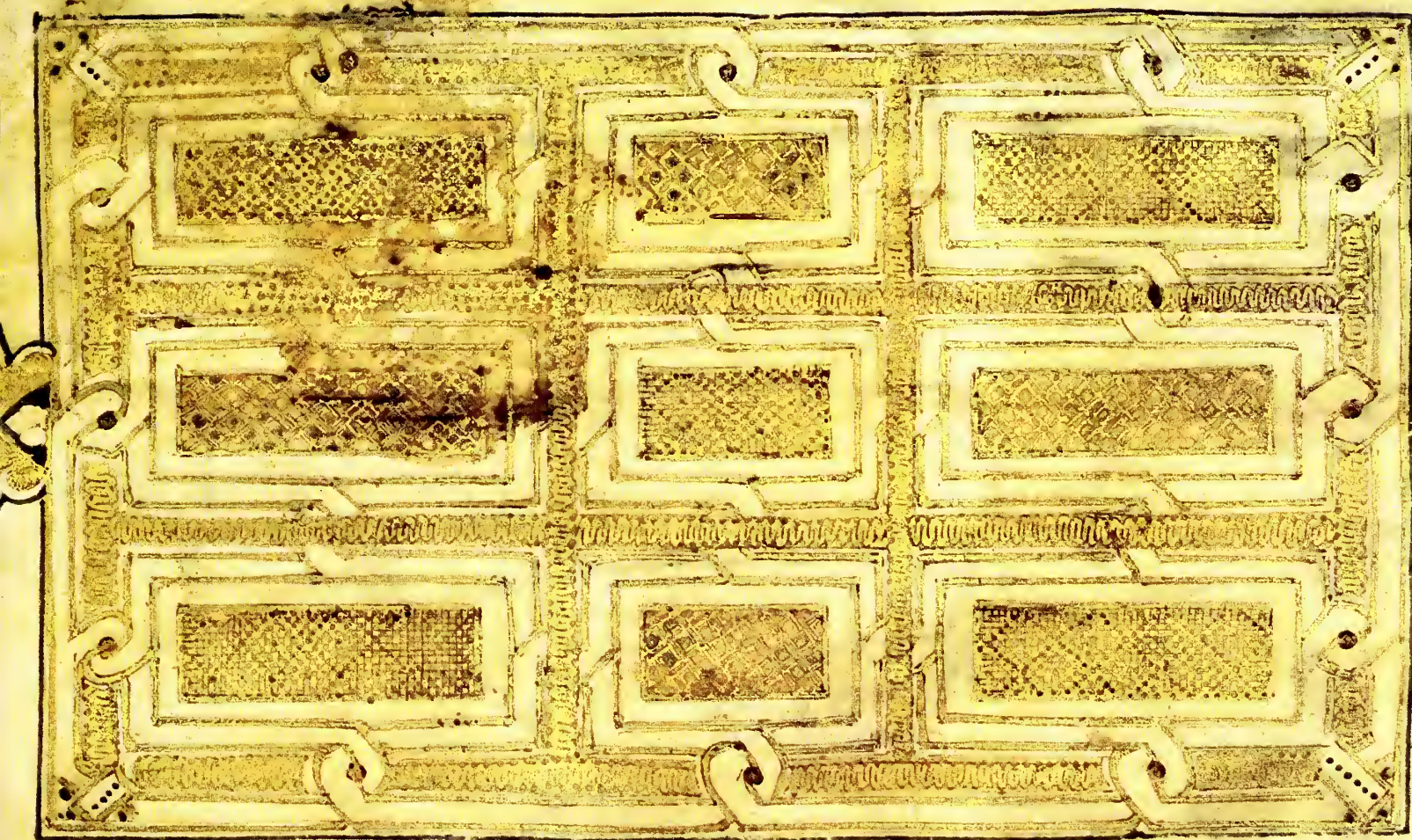
32.62r

This page, originally placed at the beginning of a Koranic section, contains seven lines of text on the back, written in dark brown *kufic* script with red diacritics. Although more elaborately decorated than the previous full-page illumination (no. 4), it employs the same principle. A large palmette extends into the margin and the horizontally placed rectangular panel is composed of a series of braided bands separated by wide strips which intersect at intervals and break the field into smaller units. These units, grouped in threes, repeat the rectangular format and are alternately filled with two different types of interlacing patterns.

The palmette in the margin is composed of highly stylized leaves, blossoms and branches. A thin blue line frames both the palmette and the rectangular panel while touches of blue and green are used to accentuate various portions of the composition.

The combination of a rectangular field utilizing geometric motifs and a rounded marginal ornament filled with floral elements also appears in a fragmentary Koran which contains a note stating that the manuscript was donated by Abd al-Munim ibn Ahmad in Damascus in 911.²¹ The date for the above example, *terminus ante quem*, is extremely useful in tracing the development of full-page illuminations.





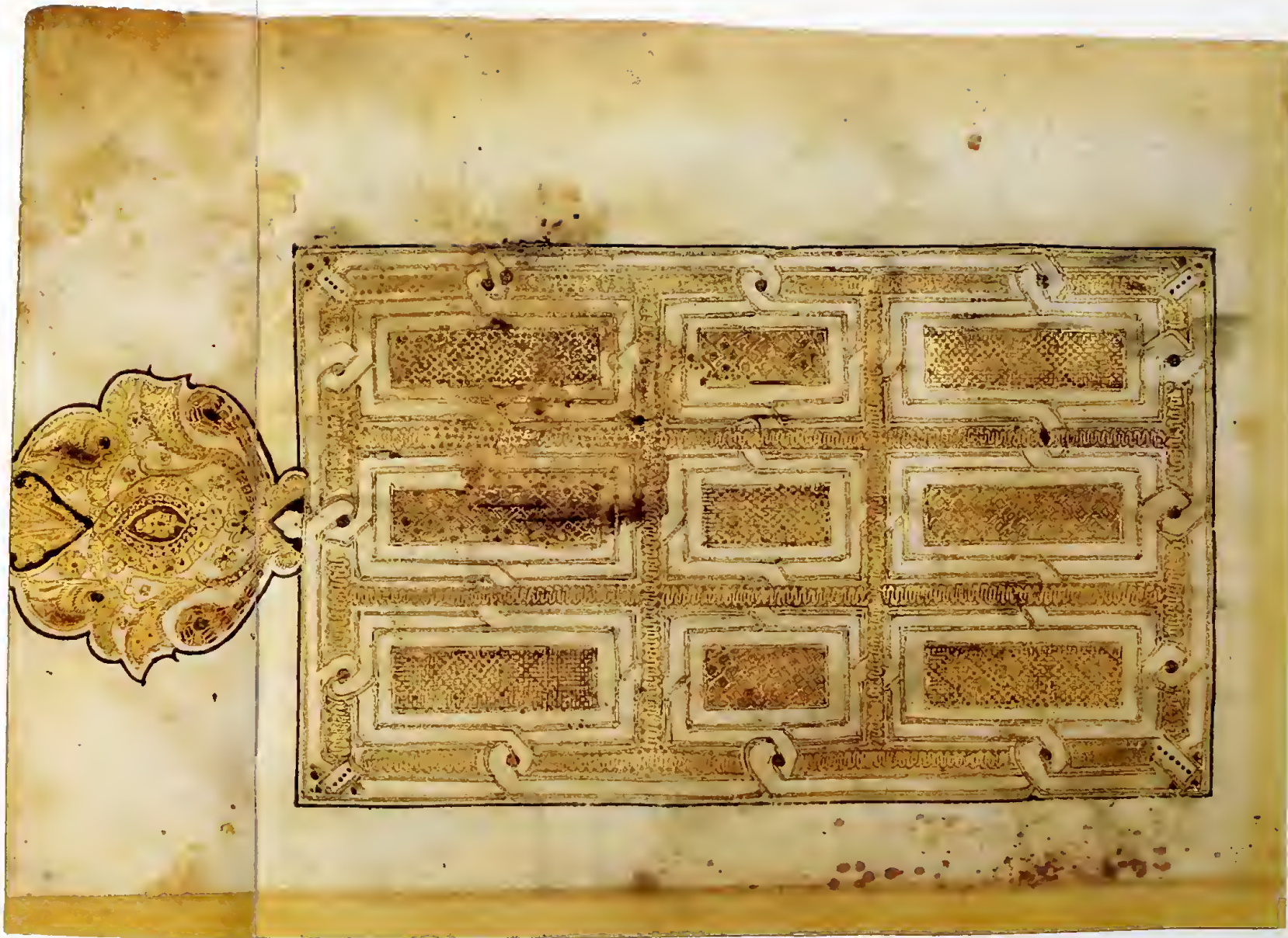
5
Page from a Koran
Color and gold on parchment
9th–10th century

Height: 20.5 cm. (8 $\frac{1}{8}$ in.)
Width: 29.1 cm. (11 $\frac{1}{2}$ in.)
32.62r

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Page from a Koran
Ink, color and gold on parchment
9th–10th century

Height: 22.4 cm. (8 $\frac{13}{16}$ in.)

Width: 29.4 cm. (11 $\frac{5}{8}$ in.)

29.71v

The single folio from a Koran has 17 lines written in black ink with red diacritics and gold verse stops. The side on display contains verses 5 through 12 from Sura XXII, *The Pilgrimage*. Toward the end of the 13th line is a square gold *ashira* mark which indicates the beginning of the 10th verse. Three small dots placed on an angle appear at the end of each verse.

Comparison with Korans executed about a century earlier (nos. 1–3) shows that the horizontal format is still retained and the text is written in the same black or dark brown *kufic* script with red diacritical marks. However, the letters have become smaller and less spaciouly placed; the entire folio is tightly composed, including considerably more lines per page.



[25]

Height: 22.4 cm. (8 $\frac{1}{8}$ in.)
Width: 29.4 cm. (11 $\frac{1}{2}$ in.)
29.71v

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بِأَيِّ مَرِّ بِكَلِمَةٍ نَمْرُ عَلَمِهِ نَمْرُ مَكْتَبِهِ مَعْلَمِهِ وَ
عَرِّ مَعْلَمِهِ لَيْسَ لَكُمْ وَ يَمْرُ فِي أَلَا دَحْمَ مَا سَالِي أَجَلِ
مُسْمِي نَمْرُ عَرِّ حَكْمَ كَلَمًا نَمْرُ لَسْلَوَا أَسَدَ كَمْرُ وَمَكْمَرُ
مَرِّ لَوِّ فِي وَ مَكْمَرُ مَرِّ نَمْرُ كَالِي أَدَكَ إِيَّا لَسْمَرُ لِكَلَا
لَسْلَمَ مَرِّ نَمْرُ كَلَمَ سَنَاءُ وَ يَمْرُ أَلَا دَحْمَ هَمْدُ فَادَا
أَبْرَ لَا خَلَمًا أَلَمَّا هَمْرُ وَ دَحْمَ وَ أَسَدَ مَرِّ كَلِ
دَوَّجَ نَهْيِي دَلَا نَزَّ أَلَلَّ هُوَ الْحَيُّ وَ أَلَلَّ حَيُّ أَلَمُو
يَمْرُ وَ أَلَلَّ حَيُّ كَلِ سَيِّدُ فَدَحْمَ وَ أَلَا سَالِي عَمَّا لَسْمَرُ لَا
دَحْمَ فَمَّا وَ أَلَا أَلَلَّ لَسْمَرُ مَرِّ فِي أَلَمُو دَحْمَ مَرِّ أَلَا
سَرِّ مَرِّ عَدَلُ فِي أَلَلَّ سَيِّدُ عَمْرُ وَ لَا هَمْدُ وَ لَا كَلِ
مَكْمَرُ نَمْرُ عَكْلَمِهِ لِكَلِ عَرِّ سَيِّدُ أَلَلَّ لَهْ فِي أَلَا دَحْمَ حَيُّ
وَ دَحْمَ نَمْرُ وَ أَلَمَمِهِ عَدَلُ أَلَا الْحَيُّ يَمْرُ دَحْمَ لَكَلَمَا
فَدَحْمَ دَحْمَ وَ أَلَا أَلَلَّ لَسْمَرُ كَلَمًا لَسْمَرُ وَ مَرِّ
أَلَا سَرِّ مَرِّ لَسْمَرُ أَلَلَّ حَيُّ حَرِّ فَمَّا رَا كَلَمًا حَيُّ أَلَا
كَلَمًا دَحْمَ وَ أَلَا كَلَمًا نَمْرُ سَيِّدُ أَلَمَمِهِ حَيُّ وَ حَمَمَ حَمْرُ
أَلَا دَحْمَ وَ أَلَا حَرِّ دَحْمَ هُوَ الْحَيُّ رَا لَسْمَرُ دَحْمَ
أَمْرُ دَحْمَ أَلَلَّ مَا لَا لَكْرُهُ وَ مَا لَا لَسْمَرُ دَحْمَ لَكَلَمًا هُوَ

7
Two Pages from a Koran
Ink, color and gold on parchment
North Africa, 13th century

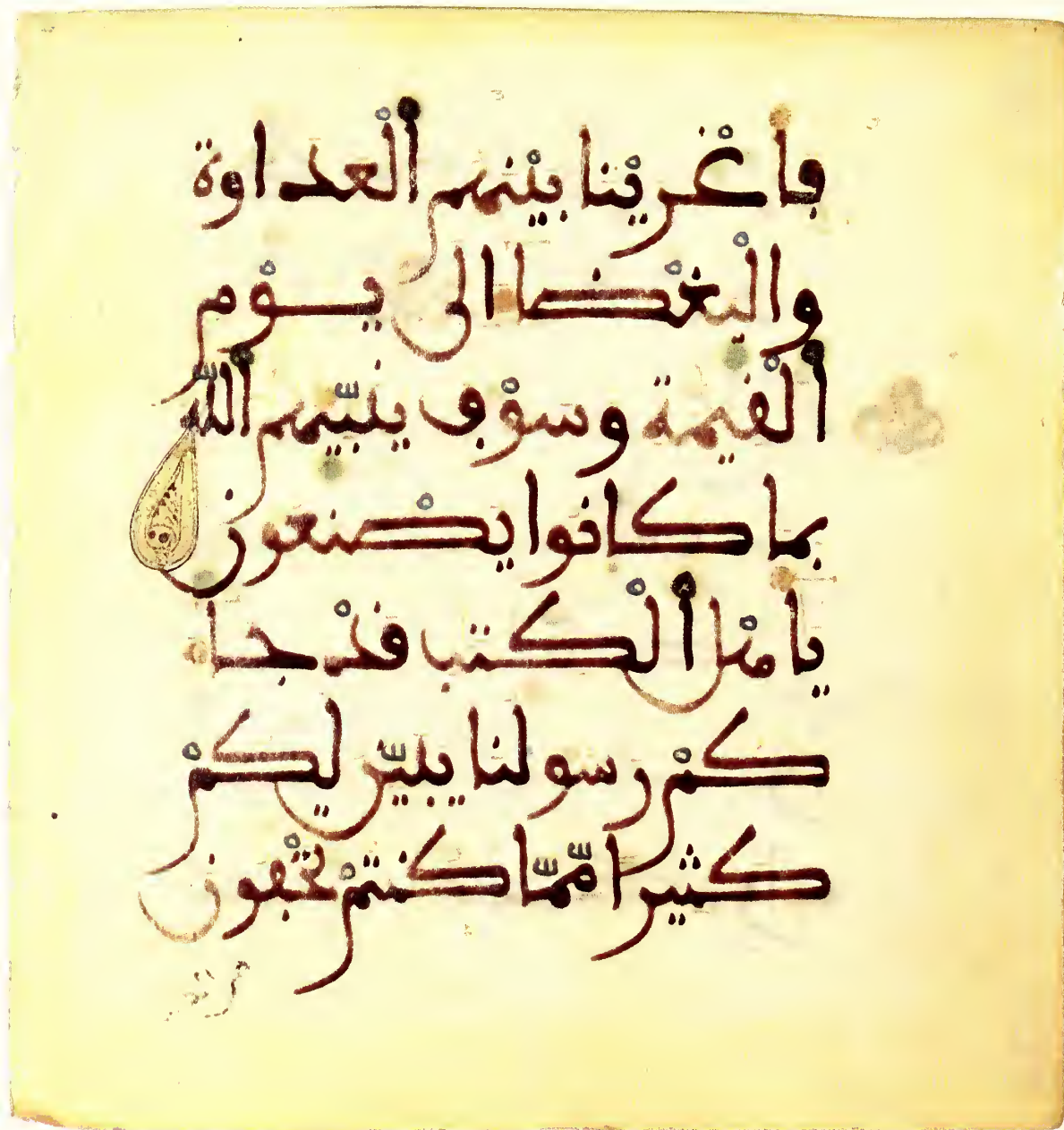
Height: 16.5 cm. (6½ in.)
Width (single folio): 15.5 cm. (6¼ in.)
29.68v–29.69v


Both folios contain seven lines of script written in dark brown ink with green, blue and yellow orthographical marks. Gold knots are used to indicate verse stops and the *khamsa*, which marks the fifth verse, is rendered as an illuminated leaf. The passages are from Sura v, *The Food*, verses 15 through 18.

The script used here is commonly called *maghribi* and refers to a particular style used in the Maghrib, that is, North Africa and Spain. The *maghribi* script is more flowing than the angular *kufic* and shows a tendency to elaborate the roundness and the elongation of certain letters.²² It is more closely related to the cursive styles such as *thuluth* and *naskhi* which were fully developed by this time.

The vertical format of these folios represents a development in the production of manuscripts which evolved around the 11th century. Vertical manuscripts gradually replaced those using the horizontal format and began to be written on paper instead of parchment. The text was rendered in various styles of the cursive script with full orthographical marks, *kufic* being reserved for the title pages and chapter headings.

Although these folios are executed on parchment, which remained in fashion longer in the Maghrib, they reflect the contemporary trend in manuscript production by employing the vertical format and a complete set of orthographic signs.



منكم فقد كل سوا
السبيل  فيما نقصهم
مئثلهم لعنهم وجعلنا
قلوبهم فسية تحرفون
الكلم عن مواضعه
ونفسوا حضا ما
ذكروا به ولا تزال

خطه

Incense Burner
Bronze, cast in sections
Egypt, 8th–9th century

Height: 31.5 cm. (12½ in.)
Width: 21.2 cm. (8⅜ in.)
Length (including handle): 40.8 cm.
(16⅙ in.)
52.1

The overall shape of this unusual object resembles a square building surmounted by a large central dome with additional smaller domes placed on the four corners. The incense burner rests on four legs, each of which is adorned with the head of a lion or griffin, placed above a large paw. The long handle terminates with an ibex, the front legs of which are missing. Of the original five eagles perched on the pinnacles of the domes, only those on two of the smaller domes have been preserved.

The piece is extremely ornate with a series of roundels, braids, interlacing bands, and other geometric and floral elements covering the entire surface. Two rows of crenellations encircle the top and bottom of the square body which is in two equal parts and joined by hinges, allowing it to be opened.

The incense was burned in the hollow square portion with its fumes escaping from the holes on the body and domes.

This example differs from both known Coptic and Islamic incense burners. The former tend to be domed cylindrical or square-shaped objects surmounted by animals or pyramidal roofs. Early Islamic incense burners are closely related to the Coptic ones and possess long handles attached to cylindrical bodies which are often topped by a single dome.²³ The birds on the finials, and the paws and animal masks on the legs have parallels in Coptic art whereas the long handle and large dome can be found in the early Islamic objects.

There are no extant buildings of the period which could have been used as the model for the Freer piece. Although the Byzantine plan of a square

surmounted by five domes can be traced to the 9th century, the remaining examples of architecture and small church furniture employing this feature are from a later period. The earliest Islamic structure showing five domes on a square is the 10th-century Mausoleum of Ismail the Samanid in Bukhara. The prototype for this incense burner was most likely either a Christian building or a church implement which imitated such a structure, both of which no longer exist.

This singular incense burner reveals an interesting transition between Coptic and Islamic art. Decorative motifs such as interlacing bands and braids are reminiscent of the themes employed in contemporary manuscript illuminations (nos. 4 and 5).





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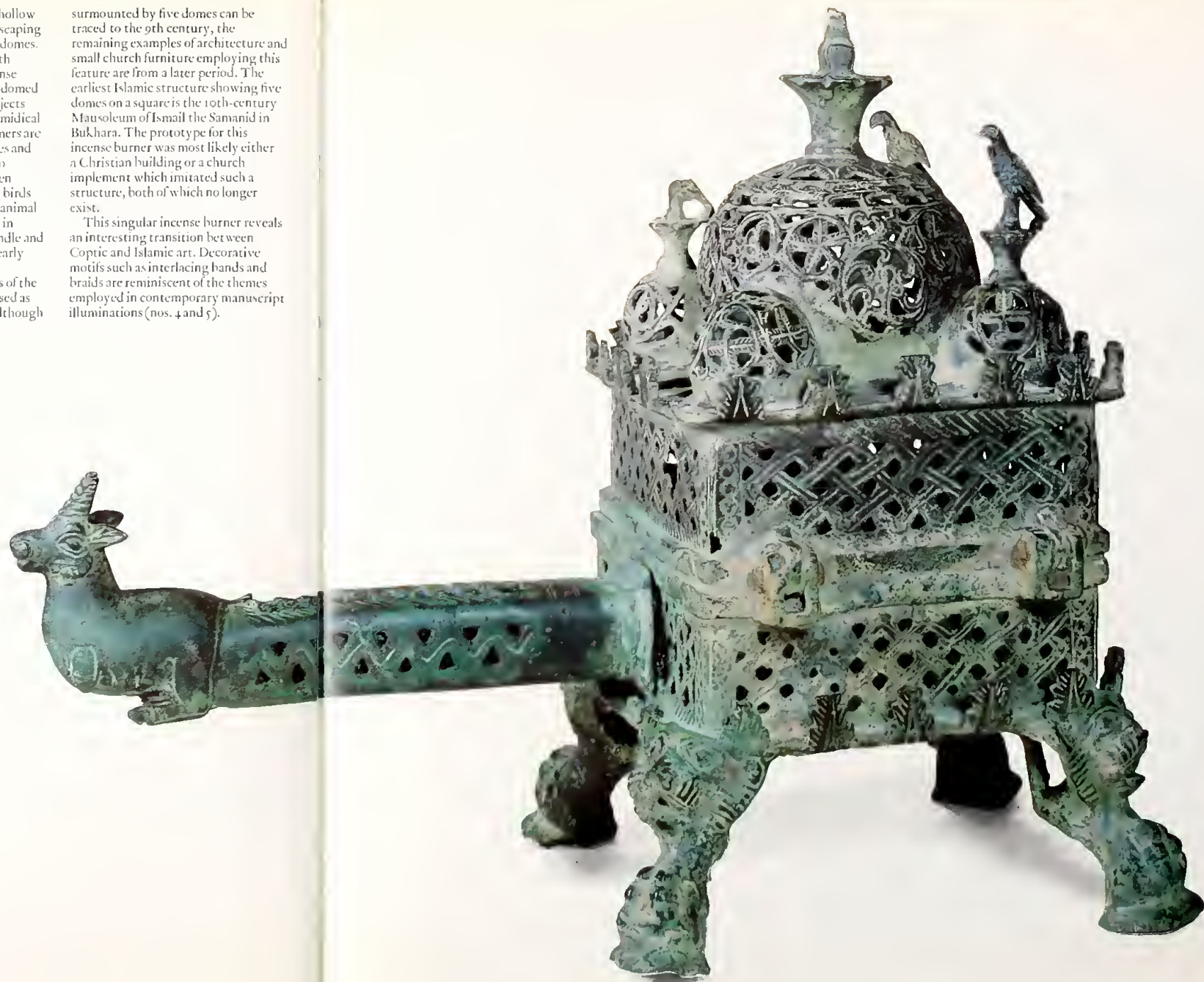
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9

Bowl
Overglaze painted in blue
Irak, 9th century

Height: 6.0 cm. (2 $\frac{3}{8}$ in.)
Diameter: 20.5 cm. (8 $\frac{1}{8}$ in.)
66.11

Two of the characteristic features of early Islamic pottery are represented in this bowl which reveals the first use of cobalt blue and the abstract design composed of geometric and floral elements.

The piece has a fine cream-colored paste which is covered by an opaque white glaze. The decoration, applied over the glaze, employs a symmetrical composition. Stylized leaves and palmettes surround a diamond-shaped unit which contains a three-petaled blossom. The blue pigment is used to outline the elements, some of which are fully painted while others are filled with diagonal strokes.

The bowl belongs to a group of tin-glazed wares which are decorated with irregular splashes of color,

stylized palmettes, floral elements, geometric designs and inscriptions. Although their shapes and opaque white glazes reflect the influence of Chinese wares exported to the Near East, their decorative repertoire is definitely of Islamic origin.

Many similar examples have been found in Samarra²⁴ as well as in Syria, Egypt and Iran. This type of ware is thought to have originated in Irak and was either exported to the other lands and imitated by local potters, or produced by itinerant Iraki craftsmen.

10

Plate
Moulded and covered with golden
luster
Irak, 9th century

Height: 2.8 cm. (1 $\frac{1}{8}$ in.)
Diameter: 28.0 cm. (11 in.)
57.23

One of the most significant contributions of the Abbasid period is the creation of luster which enabled the potters to imitate the expensive metal objects used by the members of the court. The shapes and decorations of early lusterwares clearly reflect their models, as seen on this example which attempts to simulate a gold repoussé plate with a flat base.

The decoration was applied with a mold which left the outlines of the motifs, and the bosses and strokes, in low relief. Three zones filled with roundels and braids appear on the shallow walls. The inner surface reveals a symmetrical design with interlacing bands and winged palmettes evolving from a central four-petaled rosette. Both the interior and exterior are covered with golden luster while irregular splashes of green are applied to the four palmettes and to the four knots placed between them.

Similar molded lusterwares have been excavated in Samarra and Susa²⁵. The Freer plate is said to have been found at the latter site.





Large Bowl
Overglaze painted in golden luster
Irak, 10th century

Height: 9.9 cm. (3 $\frac{7}{8}$ in.)
Diameter 35.9 cm. (14 $\frac{1}{8}$ in.)
25.6

Around the 10th century the potters started using figural compositions to decorate their luster wares. The stylistic features of this bowl characterize a group of Iraki wares which was exported as far west as Brahminabad in Pakistan and as far east as Madinah al-Zahra in Spain. These wares have a series of large circles with dots and dashes adorning the exterior walls. A scalloped band encircles the inner rim while a highly stylized animal or human figure appears in the center; the main motifs are enclosed by white contour bands and minute dots fill in the background. Inscriptions, generally bestowing good wishes, are found both on the exterior and interior. The pieces have a cream-colored paste covered by an opaque white tin glaze over which the luster was applied.

The Freer bowl, one of the largest examples of this type, represents a bearded man playing a lute. He sits cross-legged in the center of the bowl and wears a peaked cap on his head. A long branch terminating with a leaf appears on the left and on the upper right is a cartouche containing the words *توکل و* that is, "trust (in God) and." The background is filled with dots while the figure, branch and the scalloped border on the rim are enclosed by white bands.

The exterior shows six concentric circles with irregular dots and strokes filling the voids. On the base there is another inscription which reads *بركة* or "blessing."

Courtly musicians playing lutes are one of the most common themes found in early Abbasid art. They are represented on the wall paintings of Samarra²⁶ and on medals struck by two caliphs of Baghdad, al-Muktadir (908-932) and al-Muti (946-974).²⁷ An identical figure appears on a luster-painted bowl in the Islamic Art Museum, Cairo, as well as on several fragmentary pieces of pottery.²⁸





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Overglaze painted in golden luster
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Tall Jar
Overglaze painted in brownish gold
luster
Iraq, 10th century

Height: 28.2 cm. (11 $\frac{1}{8}$ in.)
Diameter: 23.2 cm. (9 $\frac{1}{8}$ in.)
53.90

Another example of monochrome lusterware combines human and animal figures with geometric and floral motifs. The narrow neck of the jar reveals a scalloped band on the inner side while circles and strokes appear on the exterior. The shoulder has a zone filled with dotted circles, known as the "peacock's eye" motif frequently seen on early Abbasid lusterwares. This zone is interrupted by four vertical strips containing stylized trees. The strips extend to the base of the jar and divide the body into four equal compartments. Four lugs executed in relief are applied between these strips.

Two alternating scenes decorate the body of the jar. One set represents two superimposed birds with large ribbons fluttering from their heads. The animals hold leaves in their beaks and have pearl collars around their necks. Each of the remaining panels shows a human figure attired in a long hooded garment. The personages wear large earrings and neckbands and have belts decorated with roundels. With both hands they hold a rope or chain which appears to hang from their inclined heads.

The figures and their activities are not properly identified. Either the potter copied an image without fully understanding its meaning and misrepresented it, or the significance of the scenes is not comprehensible to us today.²⁹





Carved rock crystal with enameled
gold mount

Egypt, 9th–10th century

Height (crystal): 10.0 cm. (3 $\frac{13}{16}$ in.)

Height (with mount): 15.2 cm. (6 in.)

Width (crystal): 6.6 cm. (2 $\frac{5}{8}$ in.)

Depth (crystal): 3.5 cm. (1 $\frac{3}{8}$ in.)

49.14

The flat and oval-shaped vessel is decorated on both sides with symmetrically arranged and highly stylized floral motifs. An axial stem evolving from two pairs of winged palmettes forms a ring in the center and terminates with an arrow-shaped unit. The palmette tree commonly called the “tree of life,” is flanked by a pair of large S-shaped elements, the volutes of which are filled with additional winged palmettes.

The flask is encased in a fine gold mount, decorated with polychrome enamels. The piece once belonged to the collection of the Hapsburg Emperor Rudolph II (1576–1612), one of the greatest art collectors of his period. The mount, which is dated around 1600, was made at his court in Vienna.

The technique of carving rock crystals was perfected during the Sasanian period and continued into the early Islamic times. The majority of the Islamic pieces have been preserved in the West, used as reliquaries in churches or collected by the members of the aristocracy.

The chronological development and provenance of a vast number of carved rock crystals have yet to be solved. Stylistic evidences indicate that the pieces were executed between the 9th and 11th centuries in Irak and in Egypt. Literary references mention that Basra produced carved crystals and the treasury of the Fatimids in Cairo possessed between 18,000 and 36,000 items. Although close to 200 pieces are known today, only three can be dated through their inscriptions: two of these refer to Fatimid caliphs and the third gives the title of a well-known Egyptian commander.³⁰ The excavations in Irak have not yielded examples of carved crystals but fragments of “crystal glass” – that is, cut glass – found in Samarra reveal a similar technique.³¹

A number of early rock crystals are adorned with winged palmettes or split leaves which are related to the architectural decoration of Samarra as well as to Tulunid woodwork and stucco. These crystals pieces, mostly parts of Christian reliquaries, chessmen or bottles, are attributed to the 9th and 10th centuries and assigned to the short-lived Tulunid (868–905) and Ikhshidid (935–969) dynasties.

Two carved rock crystals with the same shape are in the Church of Santa Chiara, Assisi,³² and in the Victoria and Albert Museum, London.³³ The former is decorated with a palmette tree which also appears on several other rock crystal bottles, ewers and cups as well as on contemporary carved glass vessels.³⁴

The majority of carved rock crystals are thought to have been executed during the Fatimid period which was renowned for the production of sumptuous and expensive objects. The Freer flask represents a rare type of luxury object used in the courts of pre-Fatimid Egypt.

The winged palmette as well as the stylized tree seen on the Freer piece can be found on the manuscript illuminations and the ceramics of the period (nos. 3–5, 9, 10 and 12).



1. The best studies on the early Islamic period are Dominique and Janine Sourdél, *La Civilisation de l'Islam Classique*, Paris, 1968; Gustav von Grunebaum, *Classical Islam: a History 600–1258*, London, 1970; and Oleg Grabar, *The Formation of Islamic Art*, New Haven – London, 1973.
2. The most outstanding piece is a bronze ewer attributed to have been made for the last Umayyad caliph in 750. Friedrich Sarre, “Die Bronzekanne des Kalifen Marwan II im Arabischen Museum in Kairo,” *Ars Islamica*, vol. I (1934), pp. 10–14. The early ceramics are discussed in Arthur Lane, *Early Islamic Pottery*, London, 1947, pp. 5–9.
3. Oleg Grabar, “The Umayyad Dome of the Rock in Jerusalem,” *Ars Orientalis*, vol. III (1959), pp. 33–62.
4. A most comprehensive survey of Umayyad architecture and decoration appears in K. A. C. Creswell, *Early Muslim Architecture*, vol. I, Oxford, 1932; and Richard Ettinghausen, *Arab Painting*, Geneva, 1962, pp. 19–40. Individual monuments are published in Alois Musil, *Kusejr Amra*, Vienna, 1907; Oleg Grabar, “The Paintings of the Six Kings at Qusayr Amrah,” *Ars Orientalis*, vol. I (1954), pp. 165–186; Robert W. Hamilton *Kbirbat al-Mafjar*, Oxford, 1959; Daniel Schlumberger, “Qasr al-Hayr,” *Syria*, vol. XX (1939), pp. 195–373; Oleg Grabar, “Three Seasons of Excavations at Qasr al-Hayr Sharqi,” *Ars Orientalis*, vol. VIII (1970), pp. 65–86.
5. For the reconstruction of the city see Jacop Lassner, *The Topography of Baghdad in the Early Middle Ages*, Detroit, 1970.
6. The excavations of Samarra were undertaken by Friedrich Sarre and Ernst Herzfeld between 1911 and 1913. The findings are fully recorded in the six-volume series, *Die Ausgrabungen von Samarra in Forschungen zur Islamischen Kunst*, Berlin, 1923–48. For the glass found in Samarra see Carl S. Lamm, *Das Glass von Samarra*, Berlin, 1928.
7. For early Abbasid and Tulunid architecture see K. A. C. Creswell, *Early Muslim Architecture*, vol. II, Oxford, 1940.
8. For two studies on this subject see Franz Rosenthal, “Significant Uses of Arabic Writing,” *Ars Orientalis*, vol. IV (1961), pp. 15–24; and Don Aanavi, “Devotional Writing: ‘Pseudo-inscriptions’ in Islamic Art,” *Bulletin of the Metropolitan Museum of Art*, vol. XXVI, no. 9 (May, 1968), pp. 353–358.
9. A discussion of “the idea of an arabesque” and pertinent references appear in Grabar, *Formation*, pp. 188–205 and 227.
10. The best references for bookbindings are Emil Gratzl, K. A. C. Creswell and Richard Ettinghausen, “Bibliographie der Islamischen Einbandkunst, 1871 bis 1956,” *Ars Orientalis*, vol. II (1957), pp. 519–540; Walters Art Gallery, *The History of Bookbinding: 525–1950 A.D.*, Baltimore, 1957; Richard Ettinghausen, “Near Eastern Bookcovers and Their Influence on European Bindings,” *Ars Orientalis*, vol. III (1959), pp. 113–131; Gulnar K. Bosch, “The Staff of the Scribes and Implements of the Discerning: an Excerpt,” *Ars Orientalis*, vol. IV (1961), pp. 1–14; Martin Levey, “Medieval Arab Bookmaking and Its Relation to Early Pharmacology and Medicine,” *Transactions of the American Philosophical Society*, vol. LII (1962).
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12. D. S. Rice, *A Unique Ibn al-Bawwab Manuscript in the Chester Beatty Library*, Dublin, 1955; Arthur S. Arberry, *The Koran Illuminated*, Dublin, 1967, no. 41 on p. 15 and pl. 26.
13. Moritz, “Arabia,” pl. IV-2.
14. Rice, *Ibn al-Bawwab*, p. 2.
15. Lane, *Early Islamic Pottery*, p. 10.
16. Friedrich Sarre, *Die Keramik von Samarra in Die Ausgrabungen von Samarra*, Berlin, 1925. Ernst Kühnel, “Die Abbasidischen Lüsterfayencen,” *Ars Islamica*, vol. I (1934), pp. 149–159.
17. Fustat has been excavated by George T. Scanlon. For the findings see his articles in the *Journal of the American Research Center in Egypt*, vol. IV (1965), pp. 7–30; vol. V (1966), pp. 83–112; vol. VI (1967), pp. 65–86; and vol. IX (1972), forthcoming; “Fustat and the Arts of Egypt,” *Archaeology*, vol. XXI, no. 3 (June, 1968), pp. 188–195; “The Fustat Mounds,” *Ibid.*, vol. XXIV, no. 3 (June, 1971), pp. 204–208; and with Ralph Pinder-Wilson, “Glass Finds from Fustat 1964–71,” *Journal of Glass Studies*, vol. XV (1973), pp. 12–30. See also Rudolf Schnyder, “Tulunidische Lüsterfayence,” *Ars Orientalis*, vol. V (1963), pp. 49–78.
18. Arthur Lane, “Glazed Relief Ware of the Ninth Century A.D.,” *Ars Islamica*, vol. VI (1939), pp. 56–65. Gerald Reitlinger, “Unglazed Relief Pottery from Northern Mesopotamia,” *Ars Islamica*, vol. XV–XVI (1951), pp. 11–22.

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20. Acc. no. 40.164.1, Hannah E. McAllister, "An Acquisition of Leaves from Early Korans," *Bulletin of the Metropolitan Museum of Art*, vol. XXXVI, no. 8 (August, 1941), p. 165.
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23. Mehmet Aga-Oglu, "About a Type of Islamic Incense Burner," *Art Bulletin*, vol. XXVII, no. 1 (March, 1945), pp. 28-45, figs 1-4.
24. For comparable pieces excavated in Samarra see Sarre, *Die Keramik von Samarra*, pls. XVIII, XIX, and XXIX-XXXII.
25. For examples from Samarra see *Ibid.*, pls. C and X-XII. Comparable pieces from Susa are published in Raymond Koehlin, *Les Céramiques Musulmanes de Suse au Musée du Louvre*, Paris, 1928, pls. XIX and XX; and Myriam Rosen-Ayalon, "Islamic Pottery from Susa," *Archaeology*, vol. XXIV, no. 3 (June, 1971), pp. 204-208, p. 207.
26. Ernst Herzfeld, *Die Malereien von Samarra in Die Ausgrabungen von Samarra*, Berlin, 1927, p. 28, fig. 13.
27. Thomas W. Arnold, *Painting in Islam*, New York, 1965, pl. LIX.
28. The Cairo bowl is published in A. U. Pope, *A Survey of Persian Art*, London, 1964-65, vol. X, pl. 579A; and George H. Farmer, *Musikgeschichte in Bildern: Islam*, Leipzig, n.d., p. 39, pl. 18. The fragmentary pieces of lusterware are illustrated in *Ibid.*, p. 39, pl. 19; and Maurice Pézard, *La Céramique Archaique de l'Islam*, Paris, 1920, pls. CXV and CXVI.
29. These figures have at times been identified as priests. Géza Fehérvári, "Two Early Abbasid Luster Bowls and the Influence of Central Asia," *Oriental Art*, vol. IX, no. 1 (Spring, 1963), p. 84, fig. 12.
30. The earliest datable crystal is a ewer in the Treasury of St. Mark's, Venice; it was dedicated to Caliph al-Aziz (975-995). The second piece, also a ewer, is in the Pitti Palace, Florence, and was made around 1000-08 for Husain b. Jawhar, the son of the famous commander of the Fatimids. The last item, a crescent, is inscribed with the title of Caliph al-Zahir (1021-36) and is in the Germanische Nationalmuseum, Nuremberg; D. S. Rice, "A Datable Islamic Rock Crystal," *Oriental Art*, vol. II, no. 3 (Autumn, 1956), pp. 85-93.
31. Lamm, *Das Glas von Samarra*, pl. VI.
32. Kurt Erdmann, "Islamische Bergkristallarbeiten," *Jahrbuch der Preussischen Kunstsammlungen*, vol. LXI (1940), pp. 125-146, fig. 3.
33. Carl J. Lamm, *Mittelalterliche Gläser und Steinschnittarbeiten aus dem Naben Osten*, Berlin, 1929, vol. II, pl. 75:2.
34. Axel von Saldern, "An Islamic Carved Glass Cup in the Corning Museum of Glass," *Artibus Asiae*, vol. XVIII, no. 2 (1955), pp. 257-270.

Art of the Fatimids

The Fatimid dynasty (909–1171) originated with Ubaidallah who came to North Africa from Syria and established an independent Shiite caliphate in the newly-founded city of al-Mahdiya near Tunis. The name of the family derives from Fatima, daughter of the Prophet and wife of Ali, whose descendants were claimed by the Shiites as the only rightful caliphs.

The Fatimids gained considerable strength in North Africa and soon extended into Sicily, Egypt, Palestine, Syria and Arabia. In 969 their illustrious general Jawhar entered Fustat and laid the foundations for the new capital, al-Kahira, or Cairo.

The dynasty reached the peak of its political power during the long reign of Caliph al-Mustansir (1036–94). However, it was continually threatened by two outside forces, the Seljuks and the Crusaders. With the loss of Sicily and the major centers of Syria and Palestine, the empire of the Fatimids was gradually reduced to Egypt. Towards the middle of the 12th century the regime started to crumble internally and in 1168 Cairo was besieged by the Crusaders. The Fatimids sought the aid of the Zengids who had grown strong in Syria, replacing the Seljuks. This proved to be fatal since a few years after the Zengids entered Cairo, their famous leader Salah al-Din, or Saladin, put an end to the Fatimid caliphate and established his own dynasty.

Under the Fatimid rule, Egypt witnessed a remarkable economic and cultural vitality, and became the center of learning. Cairo produced some of the finest works of art in the history of Islamic civilization, rivaling Baghdad in its creativity. The rivalry also extended to religious and political spheres, with Cairo becoming the seat of the Shiite caliphate, in opposition to Baghdad which was the center of the Sunnite caliphs.

The monumental religious architectural works of the Fatimids, such as the mosques of al-Azhar, al-Hakim and al-Akmar, are still standing and thoroughly documented.¹ The great palaces have been destroyed, but the existing examples of carved woodwork, textiles, ceramics, wall paintings, ivory, glass and metalwork provide a glimpse of the magnificence that once surrounded the Fatimid court.²

The best preserved series of architectural paintings outside of Egypt is found in the Cappella Palatina in Palermo, the private chapel of Roger II, the king of Sicily.³ The spectacular *mukarnas*, or honeycomb, ceiling is covered with scores of panels which represent various courtly activities, genre episodes and religious scenes, following the stylistic features developed in the Muslim world. These paintings, completed around 1140, are attributed to Arab artists brought to Sicily by Roger II.

Very few examples of Fatimid manuscript illustrations have

survived, but the painting tradition of the period can be reconstructed from the compositions seen on wall paintings, ceramics, ivory and woodcarvings. Its stylistic characteristics reveal that certain elements associated with early Abbasid and Seljuk art are combined with unique interest in realistic representation.⁴ Figures are portrayed in motion, participating in a variety of activities, and placed within a well-defined space. In the execution of figures volume is emphasized as well as movement. The art of the Fatimids reflects the influence of Irak, as well as a fascination with realism which appears to have been indigenous to Egypt.

This preoccupation is clearly demonstrated by an episode involving a competition between an Egyptian and an Iraki painter that took place at the court of Caliph al-Mustansir around 1050. The Egyptian portrayed a dancing girl about to enter a niche in the wall by painting her in white against a black ground. His opponent depicted the girl coming out of the wall by rendering her in a red dress against a yellow niche. Those present judged the work of the Egyptian painter far more remarkable and successful.⁵ This episode indicates that the painting styles of Egypt and Irak were quite similar and were based on contrasting colors. Yet the Egyptians placed more emphasis on realistic representation with an appreciation of volume, space and movement by both the artists and spectators.

The naturalistic mode coexisted with the more traditional Islamic style which is almost two-dimensional in comparison and relies upon stylized figures, arabesques and inscriptions. Both trends can be studied in Fatimid ceramics which were produced in abundance and are by far the largest group of objects executed in this period.⁶

Fatimid pottery is characterized by a buff-colored paste covered by an opaque white glaze. The luster, applied over the glaze, tends to be golden or reddish in tone. The most prevalent shapes are plates with flattened rims and bowls with flared sides. The decoration appears in the center, enclosed by a band on the rim.

The designs show either radial or cross patterns, utilizing inscriptions (no. 15) and floral motifs (no. 18), or central compositions with animal and human figures (nos. 16 and 17). An outstanding feature is the realistic representation of human figures, such as dancers and hunters, taken from the courtly cycle.

Only two Fatimid ceramics have inscriptions which enable us to date them. One fragmentary piece bears the name of Gaban, who was the commander-in-chief of al-Hakim (996-1021), while on the second piece the artist includes the name of another owner, Hasan Ikbal al-Hakimi, who served the same caliph.⁷

There are also a number of Fatimid pieces, signed by potters named Sad, Ibrahim and Muslim.⁸

In contrast to luster-painted ceramics, few examples of Fatimid metalwork still exist, the most monumental being the large bronze griffin in Pisa, thought to have been brought to Italy by the Crusaders. The liveliness and naturalism seen in the representation of the human figures can also be observed in the rare figurines of rabbits, lions and deer which are often adorned with arabesques.⁹

Hardly any of the luxurious gold utensils and jewelry made for the court have survived. The bracelet in the exhibition is an exceptional example of the art of the goldsmith (no. 14).

14
Armlet
Gold, hammered and chased
Syria, 11th century

Maximum diameter: 12.9 cm. (5 $\frac{1}{16}$ in.)
Height of clasp: 4.9 cm. (1 $\frac{15}{16}$ in.)
48.25

The large oval bracelet, or armlet, is constructed as a hollow tube which is joined together on the inner side with a seam that has been camouflaged by the decoration. The circular clasp, built with several units, is held by a draw pin. There is a hinge at one side of the armlet which allows it to be fully opened. Twisted ropes, filigree units and beads adorn the clasp while bands of inscriptions, angular ridges and braids encircle the bracelet. A band of scales adorns the inner side.

The clasp contains a central diamond-shaped unit with four small corner domes around a setting for a large gem. The surrounding circular portion reveals four larger domes alternating with the same number of settings. Unfortunately, the five gems which once adorned this piece are no longer preserved. The inner side of the clasp is decorated with fine filigree work.

Eleven bands of *kufic* inscriptions encircling the armlet bestow a series of good wishes. The first six phrases read in the same direction while the remaining five are reversed. The inscriptions, beginning from the left of the clasp, read:

- (1) النصر ال (2) ال . . . الصاعد
(3) ال . . . الصاعد (4) العمر الخالد ال . . .
(5) النصر الغالب البقي
(6) العز الدائم اليمن ال . . .
(7) البركة الكاملة
(8) النعمة الشاملة
(9) الشاملة الغبطة (10) النعمة السابغة
(11) الصاد

- (1) Victory, (2) . . . increasing,
(3) . . . increasing, (4) ever-lasting life, . . .,
(5) triumphant victory, perpetuity,
(6) eternal glory, good fortune, . . .,
(7) perfect blessing,
(8) complete favor, [interrupted by the hinge]
(9) complete joy, (10) abundant favor,
(11) happiness.

Very few of the sumptuous gold objects executed in the Fatimid period exist today. The provenance and the date of the remaining pieces have not been properly determined; they are assigned either to Syria or Egypt and attributed to the 11th or 12th century. The Freer armlet is said to have been found in Syria together with two other similar pieces, one of which entered the Damascus Museum. A related piece is owned by the Metropolitan Museum of Art, New York,¹⁰ and another less ornate example is in the Benaki Museum, Athens.¹¹

These rather large bracelets were either placed on the wrists, over the cuffs, or were used as armlets on the upper arms. They may have also been worn as anklets.



Bowl
Overglaze painted in reddish luster
Egypt, early 12th century

Height: 8.9 cm. (3½ in.)
Diameter: 21.0 cm. (8¼ in.)
36.2

The technique of luster painting, established in Irak in the 9th and 10th centuries, was transported into Egypt and continued to be employed in the Fatimid period. Fatimid lusterwares have a buff-colored paste, but they also use an opaque white glaze over which the luster is applied. The majority of the pieces are bowls and plates with thin bands on the rims which enclose figural compositions, floral decorations or inscriptions.

Calligraphy used to decorate objects and to bestow good wishes is characteristic of Islamic art, particularly in ceramics. The interior of this bowl is divided into four equal compartments by bands of inscriptions which are rendered in a highly ornate *kufic* script and adorned with arabesques. These bands contain the words *لذ* *لبد* or "pleasure" and "wealth." The combination of these two words can also be interpreted as an abundance of sweet-tasting things, such as wine, which would be an appropriate message to place inside a bowl.

The word *سعد* or "happiness" appears in the center of the piece as well as in the four compartments. It is also repeated once on the exterior walls. The spelling of this word is identical to the manner in which the potter Sad signs his name. This potter is believed to have worked in Fustat in the middle of the 11th century.¹² With the exception of an example representing a priest holding an incense burner,¹³ all the pieces bearing his signature are fragmentary and their decorations do not relate to the Freer bowl. Thus, it is very difficult to determine whether the inscriptions on this piece bestow "happiness" to the owner or repeat a proper name. However, it is possible that those inside the bowl are messages of good wishes while the word on the exterior is meant to be the signature of the artist. This type of ambiguity and word play is frequently encountered in Islamic art.

If we can assume that the signature of a potter named Sad appears on the bowl, then the problem of identifying him with *the* Sad of the mid-11th century arises. Until more intact pieces are discovered, it is not possible to determine whether all the works bearing this name belong to the same person. It is feasible that the artist of the Freer bowl was inspired by the earlier Fatimid master and used the same style in signing his name.

The lack of comparable material makes the date and provenance of this bowl difficult to establish. It was executed during the later part of the Fatimid rule, between the 11th and 12th centuries, either in Syria or Egypt. The attribution to Egypt is based on few comparable pieces discovered there.¹⁴

Since luster painting is applied over the glaze, it often wears off after frequent use. In this example, parts of the reddish luster have been abraded, leaving a yellow stain.



Overglaze painted in golden and
reddish luster

Egypt, 12th century

Height: 6.7 cm. (2 $\frac{5}{8}$ in.)

Diameter: 26.1 cm. (10 $\frac{5}{16}$ in.)

46.30

A number of Fatimid lusterwares represent courtly activities or genre episodes, as seen in this example which portrays a dancing girl flanked by two wine jars. Holding scarves in her hands and touching the ground with one knee, the figure performs a dance still seen in the Near East. The "peacock's eye" motif in the background, pearl bands on the jars and the wide contour panels around the main elements can be traced to early Abbasid pottery (nos. 11 and 12). The theme of a dancer with scarves, surrounded by jars, can also be found on the wall paintings of Samarra.¹⁵

The lively depiction of the dancer in motion, contrasting with the static representation of earlier figures, is one of the distinguishable features of Fatimid art. The figure has a three-dimensional quality which creates a sense of movement and suggests an understanding of spatial values.

The dancer is commonly represented in Fatimid art and appears on ceramics, ivories, woodwork and wall paintings in an almost identical posture.¹⁶

The exterior of the bowl is decorated with irregular diagonal strokes painted in reddish luster. It is interesting to note that both golden and reddish luster appear on one piece.





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17
Large Bowl
Overglaze painted in golden luster
Egypt, 12th century

Height: 7.0 cm. (2 $\frac{3}{4}$ in.)
Diameter: 38.3 cm. (15 $\frac{1}{8}$ in.)
41.12

Another theme found on Fatimid lusterwares is the princely hunter, as seen on this bowl. The youthful rider holds a hawk in one hand while leading his mount with the other. His turban and garments are decorated with varying motifs as are the trappings of his horse and saddle. Similar to the previous example, a wide contour panel appears around the main personage while the surrounding area is filled with "peacock's eye" motifs.

The flattened rim of the plate possesses a *kufic* inscription, enclosed by a scalloped band. Since portions of the rim have been restored, the inscription is not complete:

بركة كاملة ونعمة شاملة واقبال وسعادة
وسلامة و . . . وعافية وغبطة شاملة لصاحبه
خلصه من شر

*Perfect blessing and complete favor and
prosperity and happiness and safety and . . .
good health and complete joy to the owner,
may be saved from evil.*

The exterior is decorated with circles and strokes, similar to early Abbasid lusterwares (no. 11). On the base there is another inscription which is interpreted as *مصر* or "made in Misi" – that is, Cairo or Egypt. This phrase also appears on other Fatimid pieces.¹⁷

An identical subject, rendered in luster, decorates a fragmentary bowl owned by the Arab Museum, Cairo.¹⁸ The similarities seen in the postures of the youthful riders and in the decorative details suggest that the pieces are contemporary and may have been executed in the same workshop.





17
Large Bowl
Overglaze painted in golden luster
Egypt, 12th century

Height: 7.0 cm. (2 3/4 in.)
Diameter: 38.3 cm. (15 1/4 in.)
41.12

Another theme found on Fatimid lusterwares is the princely hunter, as seen on this bowl. The youthful rider holds a hawk in one hand while leading his mount with the other. His turban and garments are decorated with varying motifs as are the trappings of his horse and saddle. Similar to the previous example, a wide contour panel appears around the main personage while the surrounding area is filled with "peacock's eye" motifs.

The flattened rim of the plate possesses a *kufic* inscription, enclosed by a scalloped band. Since portions of the rim have been restored, the inscription is not complete:

بركة كاملة ونعمة شاملة واقبال وسعادة
وسلامة و... وعافية وغبطة شاملة لصاحبه
خلصته من شر

Perfect blessing and complete favor and prosperity and happiness and safety and... good health and complete joy to the owner, may he be saved from evil.

The exterior is decorated with circles and strokes, similar to early Abbasid lusterwares (no. 11). On the base there is another inscription which is interpreted as *مصر* or "made in Misr" – that is, Cairo or Egypt. This phrase also appears on other Fatimid pieces.¹⁷

An identical subject, rendered in luster, decorates a fragmentary bowl owned by the Arab Museum, Cairo.¹⁸ The similarities seen in the postures of the youthful riders and in the decorative details suggest that the pieces are contemporary and may have been executed in the same workshop.





Overglaze painted in reddish luster
Syria, 12th century

Height: 6.3 cm. (2½ in.)

Diameter: 21.3 cm. (8½ in.)

66.26

Aside from figural compositions and inscriptions, Fatimid lusterwares are also decorated with floral motifs, often arranged in radial compositions. This example shows a large quartrefoil motif with each lobe enhanced by a trilobed leaf. Scrolling branches and split leaves adorn the zones between the petals.

The quartrefoil designs or cross patterns are frequently seen in contemporary ceramics, used alone or in conjunction with other motifs. A bowl decorated with the identical bold composition and possessing the same dimensions has recently been published.¹⁹ The existence of a duplicate example is extraordinary since matching pairs of bowls have rarely survived. The slightly greenish tint of the opaque white glaze found on both examples suggest that they were made in Syria.

The stylistic development and different workshops of Fatimid lusterwares have yet to be identified. The precise dating of these wares also presents a problem since only two datable examples exist, both of them fragmentary. They were executed toward the end of the reign of Caliph al-Hakim (966–1021).

NOTES

Transitional Period

1. K. A. C. Creswell, *The Muslim Architecture of Egypt*, vol. I, Oxford, 1952.
2. The most comprehensive work on Fatimid portable objects and complete references are in Oleg Grabar, "Imperial and Urban Art in Islam: the Subject Matter of Fatimid Art," in *Colloque International sur l'Histoire du Caire*, Berlin-Leipzig, 1973, pp. 173–189. The catalogue of ivory carvings is published in Ernst Kühnel *Die Islamischen Elfenbeinskulpturen*, Berlin, 1971, nos. 88–130 on pp. 68–78 and pls. XCVII–CIII.
3. Ugo Monneret de Villard, *Le Pitture Musulmane al Soffito della Capella Palatina in Palermo*, Rome, 1950.
4. This feature in Fatimid painting was first recognized by Richard Ettinghausen, "Painting in the Fatimid Period: a Reconstruction," *Ars Islamica*,

vol. IX (1942), pp. 112–124; and "Early Realism in Islamic Art," in *Studi Orientalistici in onore di Giorgio Levi Della Vida*, Rome, 1956, vol. I, pp. 250–273. Studies of singular pieces are published in D. S. Rice, "A Drawing of the Fatimid Period," *Bulletin of the School of Oriental and African Studies*, vol. XXI (1958), pp. 31–39; and Ernst J. Grube, "Three Miniatures from Fustat at the Metropolitan Museum in New York," *Ars Orientalis*, vol. V (1963), pp. 89–97.

5. The story is narrated in Makrizi's *Khitat Misr*. Arnold, *Painting in Islam*, p. 22.
6. For the style of the lusterwares of the period see Richard Ettinghausen, "The 'Mesopotamian' Style in Luster Painting," *Artibus Asiae*, vol. XVIII (1955), pp. 294–306; Ralph Pinder-Wilson, "An Early Fatimid Lustre Bowl," in *Aus der Welt der Islamischen Kunst*, Berlin 1959, pp. 138–143; Marilyn Jenkins, "The Palmette Tree: a Study of the Iconography of Egyptian Lustre Painted Pottery," *Journal of the American Research Center in Egypt*, vol. VII (1968), pp. 119–126. The best summary appears in Grabar, "Imperial and Urban Art in Islam."
7. These pieces are in the Islamic Museum, Cairo, and Benaki Museum, Athens. For the former see Lane, *Early Islamic Pottery*, pl. 25A. The latter example is published in Marilyn Jenkins, "Muslim: an Early Fatimid Ceramist," *Bulletin of the Metropolitan Museum of Art*, vol. XXVI, no. 9 (May, 1968), pp. 359–369, fig. 1.
8. For the examples signed by the potter named Sad see the references given in no. 15. For Ibrahim see Gaston Wiet, "Deux Pièces de Céramiques Égyptienne," *Ars Islamica*, vol. III (1936), pp. 172–179; and Lane, *Early Islamic Pottery*, pl. 22A. The works of Muslim appear in Gaston Wiet, "Un Céramiste de l'Époque Fatimide," *Journal Asiatique*, vol. CCXLI (1953), pp. 249–254; and Jenkins, "Muslim."
9. Erica C. Dodd, "On a Bronze Rabbit from Fatimid Egypt," *Kunst des Orients*, vol. VIII (1972), pp. 60–76.
10. Acc. no. 58.37.
11. B. Segall, *Katalog der Goldschmiede-Arbeiten*, Athens, 1938.
12. Aly B. Bahgat and Félix Massoul, *La Céramique Musulmane de l'Égypte*, Cairo, 1930, pp. 51–58, pls. VIII–XIII and F.
13. This example is in the Victoria and Albert Museum, London. Lane, *Early Islamic Pottery*, pl. 26A.
14. *Ibid.*, pl. 22B. Musée de l'Art Arabe du Caire, *La Céramique Égyptienne de l'Époque Musulmane*, Cairo, 1922, pls. 18–22.
15. Herzfeld, *Die Malereien von Samarra*, pl. II.
16. For comparable figures in Fatimid ceramics, wall paintings and ivory carvings see Bahgat and Massoul, *La Céramique Musulmane de l'Égypte*, pls. XVIII–4 and XXVI–6; Ettinghausen, "Painting in the Fatimid Period," fig. 2; Kühnel, *Elfenbeinskulpturen*, nos. 89(A), 90 (E and F) and 96 on pp. 69, 70 and 72, pls. XCVII, XCIX and C.
17. Wiet, "Deux Pièces de Céramique Égyptienne," p. 179, fig. 2; Bahgat and Massoul, *La Céramique Musulmane de l'Égypte*, p. 22 and pl. A, fig. 6.
18. Lane, *Early Islamic Pottery*, pl. 26B.
19. Le Musée Nicolas Sursock, *Art Islamique dans les Collections Privées Libanaises*, Beirut, 1974, no. 15 on p. 111 and pl. 115. The dimensions of this bowl are 6.5 × 21.0 cm.

Art of the Atabeks and Ayyubids

The most complicated problem for historians of the Islamic world is the analysis of events that took place in the Near East between the arrival of the Seljuks and the Mongols, that is from mid-11th to mid-13th century. It was a period of political confusion characterized by the rise and fall of scores of dynasties and a multitude of alliances and battles between the local groups and the newcomers. Yet it was the greatest age for the development of Islamic art and civilization, truly a classical period in the history of the Near East.

The Seljuk Turks, who lived in the northern regions of the Caspian and Aral Seas, had converted to Islam in the 10th century. They started moving into the Muslim world by way of Transoxiana, led by two brothers, Tughrul and Chaghri Bey. The Seljuks were soon masters of Iran and in 1055 Tughrul entered Baghdad, receiving the title of sultan from the Abbasid caliph. Within a few years Syria and Palestine were added to their domain and in 1071 Alp Arslan, the second sultan of Baghdad, defeated the Byzantines at the Battle of Malazgirt (Manzikert), beginning the Islamization of Anatolia.

Under the Seljuk rule, Sunnism was revitalized and for the first time in 300 years the world of Islam was consolidated. However, the political stability established by the Seljuks lasted for only half a century, weakened by the gulf between the Turkish rulers and the Arabic- or Persian-speaking peoples, and by the petty rivalries between the Seljuk princes and their Turkish atabeks, or regents. The conflict between the Sunnite Seljuks and the Shiite Fatimids further undermined the strength of the empire, making the Near East vulnerable to the Crusaders and the Ismailis, or the Assassins. The latter, a fanatic Shiite sect active in Iran and Syria, systematically assassinated of the foremost leaders of the society.

After the death of Sanjar, the last great Seljuk sultan, in 1157, various members of the house set up independent regimes in Irak and western Iran, Syria, Kirman and Anatolia. In the 12th century a number of atabeks rose to power, including the Artukids in Diyarbakir and Jazira, the Zengids in Syria and Palestine, the Eldigüzids in Azerbaijan and the Salghurids in Fars. The Seljuks of Rum, or Anatolia, survived until the 1300s, when they too were replaced by smaller principalities.

The Seljuks were most influential in the reestablishment of the orthodox faith. Members of the family and the atabeks fought diligently against the Crusaders. The seven Crusades to the Near East between 1096 and 1270 were confronted by armies of mixed allegiances but a singular aim. Cities such as Jerusalem, Edessa, Antioch and Tripoli, in which the Crusaders set up their own

states, continually changed hands during the 200-year wars between the Muslims and the Christians. The Crusaders themselves were torn by internal feuds and the lack of strong leadership.

A most valiant opponent of the Christian invaders was Nur al-Din whose father had founded the Zengid dynasty (1127–1222). At the request of the Fatimid caliph, who was being threatened by the Crusaders, Nur al-Din dispatched his Kurdish commander Shirkuh to defend Cairo. After successfully repelling the enemy, Shirkuh's nephew, Salah al-Din, established himself in Egypt and founded the Ayyubid dynasty (1169–1250).

Salah al-Din, who was of the orthodox faith, extinguished the last of the Shiite Fatimids and obtained recognition of his sovereignty over Egypt, Yemen, Palestine and Syria from the Abbasid caliph in 1175. His ambition was to recapture Jerusalem and to annihilate the Latin states. It was partially fulfilled in 1187 when the Ayyubids entered Jerusalem and Salah al-Din reached an armistice with Richard Coeur de Lion.

The ensuing Ayyubid sultans continued the *jihad*, or holy war, against the Crusaders, interrupted by moments of peace. In 1229 al-Kamil, the last of the great rulers, signed a 10-year treaty with Frederick II, conceding Jerusalem and Nazareth to the Crusaders. The mutual respect and admiration that existed between the two leaders was one of the marvels of the age. This remarkable sultan received such renowned individuals as Saint Louis and Saint Francis of Assisi in his court, as both sides sought to improve relations between Muslim and Christians and to establish peaceful coexistence in the Near East. Upon the death of al-Kamil, war broke out again and in 1244 Jerusalem was reinstated by the Muslims for the last time.

The Ayyubids were not immune to the fate of other Islamic dynasties and their strength was soon weakened by internal quarrels. In 1250 Egypt was seized by the Mamluks, Turkish slave troops that had been serving the Ayyubids. The northern branch of the family was eliminated by the Mongols who swept through the Near East, devastating the cities and killing the inhabitants, including the last Abbasid caliph. The Mamluks would be the only power strong enough to stop the Mongols and to salvage the caliphate.

In spite of the political turmoil, this period witnessed a phenomenal burst of artistic energy, creating the most brilliant examples of illustrated manuscripts, metalwork and ceramics. With the rise of wealthy middle classes in the prospering cities, such as Mosul, Aleppo, Damascus and Diyarbakir, artists responded to the demand for their work by producing an incredible variety of objects.

During the second half of the 12th century all forms of art reveal a tremendous vitality in the representation of human figures. In the next 100 years the painting studios of Irak and Syria, specifically those in Baghdad and Mosul, created an extraordinary number of illustrated manuscripts.

Of the few remaining illustrated manuscripts that were produced prior to 1150, the most outstanding examples are the *Treatise on the Fixed Stars* by al-Sufi¹ and the *Automata* by al-Jazari.² The manuscripts produced after this date included a variety of subjects among which were scientific studies on astronomy, cosmology and medicine; books on horses and the usefulness of animals; and a great number of literary works.

The illustrations of early scientific manuscripts display a characteristic feature of the period, representing narrative and genre episodes not always provided by the text. The artists added personages and elaborate settings to the scenes which normally required only a visual commentary on the passages. This feature is clearly present in medical works like the *Kitab al-Diryak*,³ a study on antidotes to poisons, and the *Materia Medica*, a treatise on the pharmaceutical uses of plants (nos. 19–25).

The expansion of the text and the inclusion of descriptive vignettes are also seen in the illustrations of the literary works. Outstanding examples of this development can be found in the frontispieces of the *Kitab al-Aghani*, a compendium of great pre-Islamic and Islamic poets, originally conceived as a 20-volume series;⁴ the *Kalila wa Dimna*, lessons on princely behavior taught through the stories enacted by animals;⁵ and the *Makamat* of al-Hariri, the epitome of the Arabic belles-lettres style blended with the narrative representation in paintings.⁶ The most remarkable examples appear in the 12 illustrated copies of the last work, 6 of which were executed in the first half of the 13th century.⁷

The influence of Byzantine and Syrian manuscripts is quite visible in the early miniatures of the period. However, with the full development of illustrated literary works, such as the *Makamat*, an “Arab” style of painting evolves, characterized by the portrayal of contemporary figures and settings.⁸

The predominance of human representation is also observed in the inlaid brasses of the period which are adorned with astronomical subjects, signs of the zodiac and scenes of princely entertainment along with real or fantastic animals, inscriptions and arabesques. The most creative workshops for metalwork appear to have been in Syria, particularly those in Mosul, which were extremely productive during the long reign of Badr al-Din Lulu (1222–59), formerly a regent of the Zengids.⁹

There exist a number of signed and dated examples by artists who worked in the studios of two celebrated masters of Mosul, Ibrahim ibn Mawaliya and Ahmad al-Dhaki (no. 26). An extraordinary group of objects combines purely Islamic themes with scenes taken from Christian iconography, reflecting the cultural fusion of the age (nos. 27 and 28).

The major centers of pottery also seem to have been located in Syria, more specifically in Rakka.¹⁰ The themes and techniques employed by the Rakka potters, also found on examples from Fustat, Hama, Rusafa and Baalbek,¹¹ are closely related to those seen in Seljuk Iran. Among Syrian pottery are sgraffiato wares decorated with polychrome glazes (no. 29); underglaze-painted examples, using either a clear glaze over polychrome pigments (no. 30) or a turquoise glaze on top of black-painted motifs (nos. 31–33); and wares combining underglaze painting with brownish red lusters which are applied over the glaze (nos. 34–36). There are also a great number of utilitarian monochrome-glazed pieces with molded and carved designs (nos. 37–39). The decorations reflect the repertoire of the period with arabesques and inscriptions, human and animal figures.

One of the first scientific books to be translated from Greek into Arabic was the *Materia Medica* of Dioscorides. The author, who lived in the first century A.D., was attached to the Roman army and studied the flora of Asia Minor during his military service. In his treatise, divided into five books, Dioscorides gives the name, description, place of origin or habitat and pharmaceutical uses of some 500 plants. In time several apocryphal chapters on poisons were added and the material was arranged in alphabetical order.¹²

The first Arabic translation of the work took place in Irak during the reign of Caliph al-Mutawakkil (847–861). In the 10th century, additional translations were undertaken in Spain as well as in Iran; in subsequent years, the book was revised and edited by various Arabic writers.

The original work of Dioscorides contained drawings of the plants discussed in the text. The earliest illustrated Arabic manuscript of the *Materia Medica* was completed in 1083 and possesses 620 images (University Library, Leiden, Cod. Or. 289). There exist 12 other illustrated Arabic copies as well as several fragmentary sections.¹³

The majority of the illustrated manuscripts of the *Materia Medica* belong to the 13th century. With the exception of one, which was executed in Spain or North Africa, these manuscripts were made in the central Arab lands. The most outstanding of them is dated Rajab 621/June–July 1224. Its colophon states that the work was copied by Abdallah ibn al-Fadl, who may also have been responsible for the paintings.

The bulk of the 1224 manuscript is in Istanbul (Süleymaniye Library, Aya Sofya, no. 3703) and consists of Books IV and V of the *Materia Medica*.¹⁴ The Istanbul manuscript contains 202 folios and possesses only one painting which shows human figures while all the remaining images depict plants. More than 30 of its miniatures are now dispersed in various public and private collections in both the United States and Europe. The text is written in black *naskhi* script with red titles and each page contains 13 lines of text.

The Freer Gallery owns seven illustrated folios from this work (nos. 19–25). The paintings not only include the plants described by the author, but also show human figures who either partake in discussions or prepare the medications. The painter depicts events not found in the text and portrays contemporary personages within architectural and landscape settings. He thus develops a new iconography for the *Materia Medica* and expands the text with narrative and descriptive elements.

For the models of medical plants, the artist relies on the existing Dioscorides manuscripts, but the narrative scenes are based on illustrations found in the literary works of the period. The paintings of this manuscript are not meant to provide only a visual commentary on the text, but to decorate the book in a superb manner with rich compositions, dramatic episodes and descriptive vignettes. The work has been attributed to the school of Baghdad, based on the stylistic features of the miniatures and the narrative emphasis of the scenes.¹⁵

وَعَلَى لَدَغِهِ الرُّسْلَا يَهْدَاهُ وَضَعُ عِلْمَاهُ
مِنْ زَيْلِ سُرْمِ مَلِكٍ وَتَجْدِ لِقْرَابِ أَوْ مَرْدٍ



عَدَى مَدْقُوقِ أَوْ مَرْدٍ أَمْ مَجْجُوقِ بَدْقُوقِ
وَتَبْغِي أَنْ يَطْلُ الْجَرْحَ مَا يَحِ أَوْ مَا طَبِخَ دَوَا
مِنْ وَرْقِهِ ضَمًّا أَدَا ضَاوٍ دَخُلُونَا
تَاعًا وَتَسْمُونُ هَذِهِ الْأَدْوِيَاءَ شَهَا

Detail of no. 25

Height: 32.0 cm. (12½ in.)

Width: 22.5 cm. (8¾ in.)

43.2v

The folio belongs to Book IV, entitled *Herbs and Roots*, and includes the description and illustration of the *Colchicum Autumnale*, or autumn crocus, which is mentioned in Chapter 84. The text states that in autumn the plant produces a white flower which resembles the saffron; later it bears large leaves. The stalk grows about a span (23 cm. or 9 in.) in length and contains dark red, almost black fruit. The root is encased by a brownish black skin; when it is peeled, the inner white portion is edible and has a pleasant juicy taste.

The illustrated plant here fits this description: it possesses thick brown roots speckled with dots; a tall stem, which bears four symmetrically arranged leaves and two flowers, grows from the root. Although the text specifies white blossoms, the flowers appear blue. In the margin is the caption, "Picture of the Autumn Crocus."

The other side of the folio contains the description as well as the illustration of the mushroom which is discussed in the previous chapter.

شبهها بورق البلون وفيه شيء من رطوبة تدفق ما ليد وله ساق طوله
خوم شبر وعليه ثمر لونه احمرا مائل الى السواد واصل عليه قشر
في لونه حمر. واذا قشر الاصل طاهره واطنه ابض وعولين
طولها من رطوبة وهو متشدد يشبه بصله البلون

سوك
السنجان



وهو الزر وحرج ونطه الساق وعليه الزهر وكروانين

Height: 33.0 cm. (13 in.)

Width: 24.9 cm. (9 $\frac{13}{16}$ in.)

38.11

The passage accompanying the illustration corresponds to Book IV, Chapter 165, and discusses the heliotrope. This plant is the fourth of the species of the *Euphorbia Characias*, or the dwarf mountain pine. The text, which is on both sides of the folio, explains that the four or five stalks emerge from a single root. These stalks are about a span in length and are filled with juice. The fruit grows like "little heads" on top of the stalks which turn to the sun, giving the plant the name, "the gazer upon the sun". Both the fruit and the juice in the stalks are edible.

The painter has taken considerable liberties in the representation of the plant. It is shown to be taller than the text suggests and has only one stalk with four rounded fruit growing at the top. Two figures, standing on the spreading roots which function as the ground line, flank the plant.

The personage on the right, with a white beard, hooded cloak and long garments, is the physician. He is portrayed in an identical manner throughout the manuscript. The other figure, with long black hair and beard, short tunic and high leggings, is the attendant who is also consistently represented in the images. The attendant is cutting the stalk with a long knife, or sword, while holding it steady. The physician points to the plant with one hand and brings the index finger of the other towards his face. These gestures indicate that he is meditating on the medical properties of this particular flora. The caption, "Picture of the Fourth," refers to the heliotrope which is the fourth species in the group.

The personages in this work bear a close resemblance to the figures found in contemporary literary works, attired in similar headgear and garments.

الصنف الرابع الذي قال له الموسوسون قال له ورق شبيه
بورق الاخر غير انه قريب الشجر من ورق يقله الجمنا الا انه اذ ق
منه واشدا عندنا وله قضبان اربعة او خمسة يخرجها من اصل

صو الرابع



واحد طولها نحو من شبر اذ قاف ملو من لبن وله رائحة شبيهة رائحة
الشبث ومركبته موضع في روده وجهه هذا النبات
سفل مع امتثال الشمس ولذلك سمي الملبوس قوسا ومعنا د

Height: 33.1 cm. (13 $\frac{1}{16}$ in.)

Width: 23.2 cm. (9 $\frac{1}{8}$ in.)

32.22v

The text refers to the medical uses of the *Oenanthe*, or the flower of the wild vine, which is the fifth chapter in Dioscorides' Book V, entitled *Vines and Herbs*. After the flowers are picked and dried, they are prepared in an earthen vessel. The pharmaceutical properties of the plant seem unlimited. When the preparation is drunk, it is beneficial for the stomach and ureter, and cures constipation; when mixed with the oil of roses and applied to the skin, it cures headaches; when mixed with honey, myrrh and saffron, it cures sores; when mixed with flour and wine, it cures swollen eyes and acid stomachs; when mixed with honey, it cures eye troubles, splitting of the gums and whitlows (an inflammation of the finger or toe).

The illustration is divided into two portions by a large tree which bears red fruit amidst green leaves. On the far left, a princely figure is seated cross-legged on an ornate throne and listens intently to the doctor who faces him. The physician sits on a low stool and contemplates the ailment prior to giving a prescription.

On the other side of the tree, an attendant prepares the medicine on a portable oven. He uses a stick to stir the mixture which is cooking in a large round earthenware pot.

The only portion of the illustration that relates to the text is the vessel in which the medicine is being prepared. The artist has added the narrative vignette of the doctor prescribing medication to an ailing prince, an episode not mentioned in the text.

اذا شرب منه ونقلا البطن من الامهال وصداع الرأس اذا خلط خلوص
وراء عصبه ومن كان في لثته قرح او في مرقه فخلطه بعسل ومرو وعفرا
وطلا به ابراه ولو زمر العينين والمعدة التي تخرج من خلط بطجين وشراب
ويعصبه وهو ان تحرق علي فخاز ولحم الوجع العين ولوجع الانام والشفاف



الذي يكون فيه خلط بعسل وطلا به ع
نور او معافوس
مذايبكون من عصا والحصر قبل ان يحوض ينبغي ان يخذ قبل الجز الشديد

Height: 33.1 cm. (13 $\frac{1}{16}$ in.)

Width: 24.6 cm. (9 $\frac{1}{16}$ in.)

32.21v

This folio contains Chapters 110 through 114 of Book V, which describe such mineral substances as quicksilver, a particular red earth from Cappadocia, another type which comes from the Island of Lemnos and copperas water.

The upper half of the page on display discusses how the Lemnian clay is obtained and used to cure swollen hands after being saturated with wine. The caption of the illustration appears in the margin, "Figures of Two Clay Diggers."

The following section is devoted to copperas water, which can be found in the copper mines of Cyprus, in caves or in Spanish soil.

The illustration shows two men working in a claypit, one holding a basket and the other digging with a spade. Two different types of trees flank the figures who are beardless and wear short tunics.

The workman on the left is barefooted and has tucked his shirt into his belt, exposing his white undergarments. Both figures are represented without the customary gold haloes surrounding their heads. In this manuscript the haloes seem to be reserved for the more important figures, such as the physicians, attendants and patients.



له قوة تضاد الادوية القالة ع ع ع ع ع
حفسر وهو القلقنت

هو من خير الاول ولكنه رطب في عقد من الروح والماء هو من حرس
الاول ولكنه رطب وهو لثه اصناف منه ما يقطر ما يجف مثل الملح
وذلك يكون في قبر من معاديل الحارس ومنه ما يخرج في معاديل الخرج
منها ما يصير جامدا مثل الملح ويكون صنف اخر في ارض اسبانية مثل هذا

Height: 32.2 cm. (12 $\frac{11}{16}$ in.)

Width: 24.8 cm. (9 $\frac{3}{4}$ in.)

47.51

This portion of the manuscript belongs to the Introduction of the Second Supplement which was added later to the five books of the *Materia Medica*. The text quotes the physician Erasistratos who prescribes several cures for an ailment: drinking a drug mixed with water, using the cupping treatment or applying caustic medication on the skin.

The caption in the margin, "Picture of Erasistratos," clearly identifies the major figure in the illustration. Erasistratos, more commonly known as Eratosthenes of Alexandria (ca. 276 B.C. – ca. 194 B.C.), was one of the most learned men in antiquity. He wrote on a great variety of subjects, including medicine.

Erasistratos is shown in a relaxed mood, reclining on a bench and leaning against a cushion. He has removed the characteristic hooded cloak of the physicians and reveals his bare head with closely cropped white hair. The bench is covered by a rich carpet decorated in squares, typical of early Islamic geometric rugs.¹⁶ In front of the physician there is an open bookstand which contains a manuscript written in simulated Syriac. A figure with long dark hair stands facing the famous doctor.

Both Erasistratos and his associate seem to be meditating on the various cures mentioned in the text, using the traditional gesture of contemplation.

صوْنِ ارِسْتَرَاطُسْ

كُلُّ وَاحِدٍ وَقَالَ كُلُّ وَاحِدٍ وَسَقَا مِنْهَا مَائِقِيًا بِمَا شَرِبَ عَذِبٍ
 وَمِنْهَا مَا مَضَى مَحِيٍّ مِنْهَا مَا بَلَوِيَ بِأَدْوِيهِ أَوْ نَسَا
 وَأَجَزْنَا لَامُورٍ قَطَعَ الْمَوْضِعَ إِلَّا أَنَّهُ اخْتَارَنَا لَدَوِيهِ اللَّاتِي
 تَوْضَعُ عِيَاظُهُ رَأْسَ الْبَدَنِ فَنَشْفِ مَا فِي الْبَاطِنِ وَتَضَادُ
 تِلْكَ الْمَفْسَدَةُ فَهَذَا قَوْلُ ارِسْتَرَاطُسْ قَوْلًا شَادًّا مَلَامِيًّا



لِلْعَلَّاجِ فَالْعَبْرُ مِنْ صِحَابِ مَقُولِهِمْ أَنَّهُ لَيْسَتْ الْقُوَّةُ
 الْمَفْسَدَةُ عَلَيْهِ إِلَّا وَجَاعٌ لَّئِي تَكُونَ مِنْهَا وَلَكِنْ هِيَ

53.91r

صوم قلب
و رعض انسانا.

This painting provides a perfect example of the manner in which the painter expands the story and represents narrative features not given in the text. The scene becomes a dramatic image, enhancing the pictorial value of the manuscript.

[illegible]

Height: 33.1 cm. (13 $\frac{1}{16}$ in.)
Width: 24.6 cm. (9 $\frac{11}{16}$ in.)
32.20v

The reverse of the folio lists 16 harmful creatures which are poisonous to man, such as the wasp, bee, scorpion and various snakes. The side on display discusses the antidote to the sting of a phalangium, a venomous spider. A poultice is made from a mixture of the ashes of the fig tree, salt and wine; it can also be prepared from the pulverized root of the wild pomegranate or from birthwort which is combined with barley flour and vinegar. The wound should be bathed with seawater or water boiled with the balm before the poultice is applied. In addition to bathing in warm water for several days, the patient should drink a medication made from various ingredients such as anise and birthwort.

This portion of the text is also from the Second Supplement, Chapter 21, and was not included in the original work of Dioscorides.

The illustration, entitled "Picture of a Physician Preparing a Cataplasm," shows the doctor seated on a bench, instructing his attendant. The cushion and the carpet on the bench, as well as the open bookstand, are identical to those seen in number 23.

The attendant, who is seated on a stool in front of the doctor, is stirring the poultice in a large basin. A tall candlestick with a bird on top is placed between the figures. The large cupboard on the far left contains the medical supplies.

In contrast to the outdoor scene discussed in the previous image, this example shows a fully-equipped chamber with the proper furnishings. Both the interior and exterior settings of the manuscript are closely related to those found in the literary works of the period.

ونعالج لدغه الرتلا هذا نوضع عليها ضمادا نصنع
من زنايب وروم وبعج وشراب او من فسيوز ومان

صوم جند
عمل ضماد



عدي مدقوقا و من زنايب و من فسيوز و من روم و من
وتبغى ان يطل الجرح بما يلى او بما طيبخ ذوا ندعا ملستقلون و فعل
من ورقه ضماد اذا ضا و دخلون الحمام اياما
تاما و سقون هذه الادوية منها نزيد عا بالروم و به
حار و طون و بالسراييه ركن و انسون و زرا و نسد



26
Ewer
Brass, inlaid with silver
Made by Kasim ibn Ali for Amir
Shihab al-Din
Syria, dated 1232

Height: 36.7 cm. (14 $\frac{7}{16}$ in.)
Diameter: 21.3 cm. (8 $\frac{3}{8}$ in.)
55.22

This magnificent ewer, one of the few signed and dated pieces of Islamic metalwork, is decorated with arabesques inlaid with silver. The body is ovoid, tapering toward the foot, while the tall neck flares at the mouth; the spout is straight and the curved handle is adorned with a round thumb rest. A hinged flap covers the mouth.

The piece, shaped by hammering and spinning, is constructed of several units, such as the body, neck, handle and spout, which were soldered together.

The main decoration is a series of ogival medallions outlined by thin bands and split leaves, joined by crescents. The floral arabesques fill the medallions which are handled as separate units. Two horizontal rows, each with five units, appear on the neck while the body reveals four registers of ten medallions. The medallions are placed alternately and vary in size to fit the contour of the piece.

Different parts of the ewer are outlined by thin pearl bands which demarcate the neck, shoulder, body and foot. Braids appear around the mouth, above the foot and on the handle. The two pearl bands on the neck and the braid above the foot are placed on thick projecting rings which encircle the ewer.

Two *naskhi* inscriptions appear on the lower portion of the neck. The upper band contains the dedicatory message while the name of the maker and the date are placed in the ten lobes of the scalloped collar:

العز والاقبال لمولانا الامير الاجل الكبير
الزاهد العابد الورع امير وقادار شهاب
الدنيا والدين الملكى العزيزى عمل قاسم بن على
غلام ابراهيم ابن مواليا الموصلى وذلك فى
رمضان سنة تسع عشرين وستمائة

Glory and prosperity to our master, the illustrious amir, the great, the pious, the devout, the chaste, the loyal Amir Shihab al-Dunya w'al-Din, (the officer) of al-Malik al-Aziz.

The work of Kasim ibn Ali, the ghulam (slave or servant) of Ibrahim ibn Mawaliya al-Mawsihi. This (was made) in Ramadan of the year 629 (August–September 1232).

A third band of *naskhi* inscriptions placed on the foot bestows the traditional series of good wishes to the owner.

The spout is decorated in a somewhat different manner: the upper and lower portions have two narrow panels with *kufic* inscriptions while a third inscription appears adjacent to the body below the ring. Geometric interlaces adorn the wide central portion of the spout. Thin strips of copper are seen in the bands which encircle the spout. Since the *kufic* script, decoration and copper inlay seen here do not appear on other portions of the ewer, it is highly probable that the spout belongs to another contemporary piece. All the known ewers from this period reveal similar additions and repairs.

Kasim ibn Ali, the maker of the Freer ewer, was trained in the atelier of Ibrahim ibn Mawaliya, which executed two other metal pieces.¹⁷ The object belongs to group of metalwork which was made in Mosul, the most renowned center for inlaid brasses in the 13th century.¹⁸

The amir, or commander, who commissioned the work is identified as Shihab al-Din Tughrul, the Turkish atabek, or regent, of the Ayyubid Sultan of Aleppo, al-Malik al-Aziz Ghiyath al-Din (1216–37). Ghiyath al-Din was enthroned while a child and his regent ruled Aleppo until the sultan became of age in 1232. Shihab al-Din was renowned for his loyalty and piety which accounts for the epithets used on the ewer. This amir founded the Atabekiya Madrasa in Aleppo where he was buried in 1233.





This magnificent ewer, one of the few signed and dated pieces of Islamic metalwork, is decorated with arabesques inlaid with silver. The body is ovoid, tapering toward the foot, while the tall neck flares at the mouth; the spout is straight and the curved handle is adorned with a round thumb rest. A hinged flap covers the mouth.

The piece, shaped by hammering and spinning, is constructed of several units, such as the body, neck, handle and spout, which were soldered together.

The main decoration is a series of ogival medallions outlined by thin bands and split leaves, joined by crescents. The floral arabesques fill the medallions which are handled as separate units. Two horizontal rows, each with five units, appear on the neck while the body reveals four registers of ten medallions. The medallions are placed alternately and vary in size to fit the contour of the piece.

Different parts of the ewer are outlined by thin pearl bands which demarcate the neck, shoulder, body and foot. Braids appear around the mouth, above the foot and on the handle. The two pearl bands on the neck and the braid above the foot are placed on thick projecting rings which encircle the ewer.

Two *naṣḥi* inscriptions appear on the lower portion of the neck. The upper band contains the dedicatory message while the name of the maker and the date are placed in the ten lobes of the scalloped collar:

العز والاقبال لمولانا الامير الاحل الكبير
الزاهد العابد الورع امير وقادار شهاب
الدنيا والدين الملكي العزيزي عمل قائم بن علي
غلام ابراهيم ابن مواليا الموصل وذلك في
رمضان سنة تسع وعشرين وستمائة

Glory and prosperity to our master, the illustrious amir, the great, the pious, the devout, the chaste, the loyal. Amir Shihab al-Dunya w'al-Din, (the officer) of al-Malik al-Aziz.

The work of Kasim ibn Ali, the ghulam (slave or servant) of Ibrahim ibn Mawaliya al-Mawṣili. This (was made) in Ramaḍan of the year 629 (August–September 1232).

A third band of *naṣḥi* inscriptions placed on the foot bestows the traditional series of good wishes to the owner.

The spout is decorated in a somewhat different manner: the upper and lower portions have two narrow panels with *kufic* inscriptions while a third inscription appears adjacent to the body below the ring. Geometric interlaces adorn the wide central portion of the spout. Thin strips of copper are seen in the bands which encircle the spout. Since the *kufic* script, decoration and copper inlay seen here do not appear on other portions of the ewer, it is highly probable that the spout belongs to another contemporary piece. All the known ewers from this period reveal similar additions and repairs.

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27

Basin

Brass, inlaid with silver

Made for Sultan al-Malik al-Salih

Najm al-Din Ayyub

Syria, ca. 1240

Maximum height: 23.3 cm. (9 $\frac{1}{8}$ in.)

Rim diameter: 50.0 cm. (19 $\frac{11}{16}$ in.)

Base diameter: 38.0 cm. (15 in.)

55.10

This spectacular basin epitomizes the technical and aesthetic achievements of the Syrian metalworkers. Its composition is based on a series of wide horizontal zones, interrupted by medallions and adorned with figural compositions, animals, arabesques and inscriptions.

Three thin strips filled with palm-ettes, braids and arabesques appear on the exterior of the widening rim. Four horizontal bands of unequal width divide the body of the basin. The uppermost band shows a highly ornate plaited *kufic* inscription intersected by five polylobed medallions which represent scenes from the Life of Christ. Below it is a zone of almost equal width, containing five panels separated by polylobed medallions; four riders are depicted in each of these panels. The third band is considerably narrower and possesses 25 animals running counterclockwise, broken into groups of five by small roundels which portray musicians. The lowest zone is filled with a floral arabesque.

On the rim of the interior there is a thin arabesque scroll framing a frieze of 40 animals which run counterclockwise. The interior walls are divided into three horizontal zones. The upper zone is the widest and reveals a *naskhi* inscription, once again interrupted by five polylobed medallions. The central band represents an arcade with a standing figure placed in each of its 39 arches. The lowest zone is decorated with an arabesque, identical to that portion of the exterior.

27

Basin
Brass, inlaid with silver
Made for Sultan al-Malik al-Salih
Najm al-Din Ayyub
Syria, ca. 1240

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Base diameter: 38.0 cm. (15 in.)
55-10

This spectacular basin epitomizes the technical and aesthetic achievements of the Syrian metalworkers. Its composition is based on a series of wide horizontal zones, interrupted by medallions and adorned with figural compositions, animals, arabesques and inscriptions.

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On the rim of the interior there is a thin arabesque scroll framing a frieze of 40 animals which run counterclockwise. The interior walls are divided into three horizontal zones. The upper zone is the widest and reveals a *naskhi* inscription, once again interrupted by five polylobed medallions. The central band represents an arcade with a standing figure placed in each of its 39 arches. The lowest zone is decorated with an arabesque, identical to that portion of the exterior.









The interior of the base is considerably worn from excessive use and its decoration is badly damaged. It reveals three concentric bands, the outer one filled with arabesques. The second band, interrupted by medallions, represents five groups of figures, each with three personages. The center of the base is adorned with a radiating pattern and shows arabesques evolving from a series of animal and human heads.

A European coat of arms has been engraved on the exterior of the base. It possesses a shield with a chevron, two roses and a rampant bull. The shield is flanked by two unicorns, a knight's helmet and another bull, amidst floral decorations and ribbons bearing a Latin motto. The coat of arms has been identified as that of the Counts de Bornioli of France, who most likely owned the piece in the 18th century as suggested by the style of engraving.¹⁹

The backgrounds of the bands and medallions are filled with a variety of decorative motifs, revealing arabesques composed of large split leaves and palmettes, concentric scrolls and tightly-wound branches. Thin strips encircle the units and twist around the medallions which are placed in alternating positions.

An unusual feature is the appearance of human and animal heads in the floral arabesques; they are located behind the *kufic* inscription and in the large five medallions of the central band of the exterior as well as on the inner side of the base and in the medallions between the *naskbi* inscription.

The complex iconography includes both Christian themes and secular princely entertainment. The five medallions of the top register on the exterior depict the Virgin and Child flanked by two angels; the Annunciation with an angel appearing before Mary; Christ, holding a bowl, joined by two personages, possibly representing the Last Supper; the Entry into Jerusalem with Christ mounted on a donkey and accompanied by a pair of figures; and the Raising of Lazarus in which Christ, attended by a man, approaches Lazarus who is emerging from a stone sarcophagus. The personages in these five scenes as well as the 39 figures standing under the arches in the interior are definitely taken from Christian images. They wear long loose robes, are bareheaded

and have haloes around their heads. Prototypes for the scenes from the Life of Christ and the saints under the arcades can be found in Eastern Christian book illustrations and architectural decoration.

More characteristic of contemporary Islamic metalwork are the themes of princely entertainment, the running animals and the inscriptions. The five panels of the exterior depict four mounted figures participating in a polo game. Some of the panels show additional animals, such as hares and dogs. The riders, placed against long branches laden with blossoms, are attired in long garments and turbans. The movement of the players and their mounts is represented in an extremely skillful manner.

Figures playing tambourines, flutes, lutes and lyres are seen in the small medallions below the polo players. Musicians also appear in the central band of the base; here they are combined with drinking figures who hold wine bottles, beakers and cups, actively partaking of courtly entertainment.

There is a similarly lively depiction in the animals which appear in the friezes on both the exterior and interior. An extraordinary variety of real and imaginary four-legged animals are represented, such as bears, wolves, lions, leopards, deer, hares, donkeys, bulls, jackals, boars, kyilins, unicorns and sphinxes.

The basin was made for Sultan al-Malik al-Salih Najm al-Din Ayyub, the ruler of Diyarbakir (1232–39), Damascus (1239 and 1245–49) and Egypt (1240–49). The dedicatory inscription on the exterior, rendered in *kufic*, reads:

عز لمولانا السلطان الملك الصالح السيد الاجل
العالم العامل المجاهد المرباط الموائد المنصور
نجم الدين ايوب ابو محمد ابن ابي بكر
ابن ايوب

*Glory to our master, the Sultan al-Malik al-Salih, the wise, the illustrious, the learned, the efficient, the defender (of the faith), the warrior (of the frontiers), the supporter (of Islam), the victor, Najm al-Din Ayyub Abu (sic.) Muhammad ibn Abu Bakr ibn Ayyub.*²⁰

The longer inscription in the interior, written in *naskbi* script, repeats almost the same phrases:

عز لمولانا السلطان الملك الصالح السيد الاجل
العالم العامل المجاهد المرباط الموائد المنصور
المصور نجم الدنيا والدين ملك الاسلام
والمسلمين ابي الفتح ايوب ابن الملك الكامل
ناصر الدنيا والدين محمد ابن ابي بكر ابن
ايوب خليل امير المؤمنين عز نصره

*Glory to our master, the Sultan al-Malik al-Salih, the wise, the illustrious, the learned, the efficient, the defender (of the faith), the warrior (of the frontiers), the supporter (of Islam), the conqueror, the victor, Najm al-Dunya w'al-Din, the lord of Islam and Muslims, Abu'l-Fatb Ayyub, ibn al-Malik al-Kamil Nasr al-Dunya w'al-Din Muhammad ibn Abu Bakr ibn Ayyub, the beloved of the Commander of the Faithful (that is, the Caliph), (may his) victory be glorious.*²¹

Three other pieces of metalwork bear similar dedications to Najm al-Din. One of these is a plate in the Louvre, Paris; the other two are large basins with almost the same dimensions, owned by the Museum of Islamic Art, Cairo, and the University of Michigan.²²

This illustrious sultan was so fond of polo that he built a special field in Cairo.²³ His personal interest in this game helps to explain the predominance of the polo players on the Freer basin.

During the Ayyubid period there was a close contact between the Christians and Muslims, strengthened by political alliances and even friendship among the Crusaders and the sultans. This is reflected in the complex iconography of the basin that combines Christian and Islamic themes, also found on other contemporary pieces (see no. 28). Ironically, Najm al-Din died while fighting against the Crusade of Saint Louis.

There exist few comparable basins which were executed in the workshops of Mosul. One of these was made by Ahmad al-Dhaki for al-Adil II (1238–40), the brother and predecessor of Najm al-Din.²⁴ Another example, with a matching ewer, is signed by Ali ibn Abdallah.²⁵

Basins with a similar shape continued to be produced in the Mamluk period. The most renowned example is the so-called Baptistère de Saint Louis, which was made in the first half of the 14th century.²⁶ Another

contemporary Mamluk basin was commissioned by Hugh IV de Lusignan, the king of Jerusalem and Cyprus (1324–59).²⁷ Both objects follow the mid-13th century shape with a flat bottom and straight walls as seen in the Ayyubid examples made for al-Adil II and Najm al-Din.

28
Canteen
Brass, inlaid with silver
Syria, mid-13th century

Maximum height: 44.7 cm. (17 $\frac{5}{8}$ in.)
Depth: 21.3 cm. (8 $\frac{3}{8}$ in.)
41.10





The shape of this unusually large and sumptuous canteen is based on pilgrim bottles which date as far back as the Parthian period. The body of the piece is in two sections. The bulging half joins the flat portion at the sides, its seam hidden by the decoration. The middle of the flat side possesses a pit.²⁸ The canteen was most likely hung on a post inserted into the pit and was turned by the two slender handles until water, filtered through the strainer placed inside the neck, flowed from the spout.

Similar to the previous object (no. 27), the decorative repertoire consists of wide bands and medallions filled with arabesques, inscriptions, animals and figural compositions which represent Christian and Islamic themes.

The spherical part of the body has a central medallion which portrays the Virgin and Child Enthroned, flanked by four flying angels and two saints. This portion is enclosed by a band of *kufic* inscriptions. The outer zone contains three large panels separated by medallions and filled with arabesques composed of animals and birds. The three panels represent the Nativity, the Presentation in the Temple and the Entry into Jerusalem from the cycle of the Life of Christ. Interlacing bands with meander patterns surround the medallions between the panels and link them with the central unit.

A second band of *kufic* inscriptions appears on the outer zone, which curves down to meet the sides of the canteen. The central zone of the side walls contains a frieze of highly sophisticated animated script, utilizing human and animal figures. The flat portion of the piece, turned up to join the convex half, forms the last band of the sides. It is adorned with 30 roundels in which hawks attacking birds alternate with units depicting diverse activities, such as princely figures surrounded by drinking bowls, wine bottles and cups, or musicians playing tambourines, lyres, flutes and drums. The two inscriptions as well as this band are encircled with thick braids executed in relief.

The flat side of the canteen shows two concentric zones surrounding the pit. On the outer zone is an arcade with 25 figures standing under the arches. Two of these personages represent the Visitation with the Virgin and

Archangel Gabriel. The remaining figures portray either the patriarchs of the Church who are attired in long flowing robes and hold censers, books, scrolls, bowls and beakers; or the warrior saints who carry swords. The inner zone depicts nine horsemen participating in a mock battle or a tournament.

The spout is adorned with arabesques and braids while a band of *naskhi* inscriptions appears on the neck.

The combination of Christian and Islamic themes (such as saints, scenes from the Life of Christ, princely entertainment and Arabic inscriptions) can also be found on other contemporary Syrian metalwork.²⁹

The inscriptions which appear on the spherical portion have been fully translated. The *kufic* band around the central medallion begins after the roundel immediately above the Virgin:

العز الدام والعمر السالم والجد الصاعد والدولة
الباقى والسلامة الغالبية والبقا لصا

Eternal glory and secure life and increasing riches and enduring power and safe conquest and perpetuity li-sa (to the owner).

The longer *kufic* inscription on the outer rim, or shoulder, starts after the roundel on the lower left of the canteen:

العز الدام والعمر السالم والاقبال الشاملة
والجد الصاعد واليمن ال... والتعمة الخالد
والمساعى والخير الوافر والتصر الغالب
والدولة الباقية السلامة الغالبية التعمة الخالد
والكرامة الكاملة لصا

Eternal glory and secure life and complete prosperity and increasing riches and good fortune and... ever-lasting favor and generosity and abundant good fortune and triumphant victory and enduring power, safe conquest, ever-lasting favor and perfect honor li-sa (to the owner).

The *naskhi* inscription on the neck cannot be fully deciphered. However, it has been suggested that two of the words might be *al-ikram* and *al-afiyah*, meaning “honoring” and “health.” These words are often used in connection with eating or drinking, appropriate to the purpose of the canteen.

The most problematic inscription is the animated script which appears on the side walls of the object. The few words that have been deciphered bestow the traditional good wishes which also appear in the *kufic* inscriptions.³⁰

Since the canteen is not dated or signed, the attribution to Mosul, mid-13th century, is based on its stylistic and iconographical evidences which show affinities with the dated pieces made in the workshops of that city.

This type of Near Eastern canteen was the prototype for a unique 15th-century Chinese blue and white porcelain which is also owned by the Freer Gallery.³¹





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29

Bowl

Incised and painted with green,
yellow and purple glazes
Syria, late 12th–early 13th century

Height: 7.6 cm. (3 in.)
Diameter: 28.3 cm. (11½ in.)

42.13

Many of the techniques and themes initiated in Iran during the Seljuk period are also found in Syria which was ruled by the Ayyubids at the time. One type of ware executed during this period uses the sgraffiato technique in which the rough reddish paste of the piece was coated with a thin layer of a fine-grained white clay, or engobe. The design was incised on the engobe and polychrome glazes were applied into the designated areas. Then the piece was covered by a transparent glaze. The purpose of the incised lines was to prevent the different colored glazes from running into the adjacent areas. Both the Iranian and Syrian examples tend to represent single real or imaginary animals, enclosed by floral scrolls and arabesques.

In this piece, a heraldic bird appears in the center of the bowl, surrounded by loosely executed leaves. The central medallion is framed by a plain zone and a chevron design composed of multi-colored leaves appears on the rim.

In contrast to the contemporary Iranian examples, the glazes of the sgraffiato wares made in Syria have a tendency to run. This feature is clearly visible on the rim and cavetto of the bowl in which the glazes have spilled over into the neutral zones.

An unusual incised piece showing a rider was found in Aleppo which establishes the Syrian provenance of this type of ware.³²

30

Small Bowl

Underglaze painted in black, blue,
green and brownish red
Syria, early 13th century

Height: 4.1 cm. (1½ in.)
Diameter: 15.2 cm. (6 in.)

25.7

Another type of Syrian pottery, based on Seljuk examples, is the polychrome-painted ware commonly called *minai*, “enameled,” or *haft rang*, “seven-colored,” in Iran. The Iranian examples were fired twice: first to affix the underglaze colors which require a higher temperature, then for the additional pigments which were applied over the glaze and refired at a lower temperature.

Contrary to the Iranian *minai* wares, this example is underglaze painted and was fired only once. The coarse off-white paste has a coating of a fine-grained engobe; the design, outlined in black, is filled with colors and the piece is covered by a transparent glaze. The glaze is quite thick and has a greenish tinge; it has decomposed with large areas of iridescence covering the surface.

The bowl shows a seated youthful figure, set off by a wide neutral band, placed against a floral arabesque. A simulated *kufic* inscription, written in reserve, appears on the rim. The wide contour band around the main theme, reminiscent of early Abbasid and Fatimid pottery, is frequently seen on other Ayyubid wares.

The figure sits cross-legged with one hand resting on his thigh while the other holds up a beaker. He wears a cap with a high front and a garment adorned with arm bands and floral arabesques. Both the posture and costume of the personage are commonly seen in miniatures and metalwork (see for instance nos. 28 and 47).

Although there is not an abundance of polychrome-painted wares from Rakka, a number of pieces decorated with princely hunters, drinking figures, musicians and animals have been published.³³ Comparable fragments were found in Hama, Baalbek and Fustat.³⁴





31

Bowl

Painted in black under turquoise glaze
Syria, late 12th–early 13th century

Height: 7.6 cm. (3 in.)

Diameter: 26.6 cm. (10½ in.)

47.8

A third technique employed by the Syrian potters reveals black motifs painted under a transparent turquoise glaze. This type of ware has a coarse off-white paste covered by an engobe. The black pigment, applied to the engobe, is at times quite thick and appears in relief under the turquoise glaze.

The shape of this bowl, with a wide flattened rim, is typical of Ayyubid wares (see nos. 29, 30 and 34). A series of lines varying in thickness frames the rim which is decorated with widely spaced dots. The center of the bowl represents a heron enclosed by a neutral zone while the surrounding area is filled with dots, circles and strokes. The exterior is plain with a thin line encircling the walls.

The animal is rendered in silhouette, set off by the wide contour band. The delicate curves of the neck, head, long beak and slender legs are sketchily drawn whereas the body is fully painted; the wings, chest feathers and the joints of the legs are executed in reserve. The rhythm of the curves, repeated in the enclosing contour band, forms a harmonious composition accentuating the roundness of the bowl.

The sophistication of the design is characteristic of the Syrian workshops which produced an abundant quantity of black and turquoise wares, unequalled in their spontaneous and delicate drawings. Most of these wares represent animals or birds, the latter being a favorite motif.

A related piece with a heron was formerly in the Kelekian Collection, New York, while another depicting two birds is owned by the Metropolitan Museum of Art, New York.³⁵ The same rhythmic feeling appears in an example in the British Museum, London. It is executed in an identical technique, but employs an arabesque as its main theme, presented in silhouette and surrounded by a neutral zone.³⁶

32

Small Vase

Painted in black under turquoise glaze
Syria, late 12th–early 13th century

Height: 14.6 cm. (5¾ in.)

Diameter: 12.1 cm. (4¾ in.)

04.292

This vase belongs to the same group as the previous example (no. 31). Although the piece is a small utilitarian object, its harmonious proportions and charming animals reveal the high aesthetics of the Syrian potters.

The slightly flaring rim has a thin band while loosely drawn curving

strokes adorn the neck. Three gazelles with elongated horns appear on the body, surrounded by haphazardly placed dots and curls. Similar to the heron discussed earlier, the animals are shown in silhouette with parts of their bodies rendered in reserve.

The thick cracked glaze, unevenly applied and not fully covering the base, gathers into pools at the foot. This feature is typical of the Ayyubid wares which appear to have been speedily, and at times carelessly, executed.

The shape of the vase is also characteristic of the Syrian workshops and is repeated in different techniques and varying sizes (see no. 33).



Large Vase
Painted in black under turquoise glaze
Syria, late 12th–early 13th century

Height: 31.1 cm. (12¼ in.)

Diameter: 21.6 cm. (8½ in.)

o8.136

The shape of this piece is similar to that of the vase discussed previously, although considerably larger in size. It is divided into horizontal units containing solid bands, scrolls and large dots; the rim shows a thick band while the neck has an arabesque frieze; the shoulder possesses a zone of loosely drawn strokes above another thick band which is also repeated at the base. The main theme of decoration is a series of more or less alternately placed diamond-shaped strokes which cover the body, similar to that seen on the rim of the heron plate (no. 31).

The fine-grained white engobe placed over the coarse body is uneven and does not fully extend to the base. The turquoise glaze is also haphazardly applied and stops above the lower band. The interior of the vase is partially glazed.

A group of similar Rakka vases have been published, some of them almost identical to the Freer piece.³⁷ This vase was purchased in Aleppo, together with numbers 35 and 36. According to an eyewitness report, these objects came from Rakka and were packed inside a large jar.







34

Bowl

Underglaze painted in blue and turquoise, overglaze painted in brownish red luster
 Syria, late 12th–early 13th century

Height: 7.5 cm. (3 in.)

Diameter: 25.9 cm. (10 $\frac{3}{16}$ in.)

42.5

A fourth type of Syrian wares combines luster painting, which is applied over the glaze, with underglaze-painted blue and turquoise motifs. This group of wares is often decorated with arabesques and inscriptions, and reveals an extraordinary variety of shapes, such as jugs, vases, cups, goblets, ewers and jars. However, the most frequently encountered pieces are bowls with wide flattened rims, as seen in this example.

The bowl is decorated with concentric bands, in the center of which is a radiating floral motif composed by split leaves and petals. A thin frieze adorned with trilobed leaves encircles the central medallion as well as the wide band which surrounds the inner walls. This band is broken into four units by roundels which also contain a trilobed leaf. The four units are alternately decorated with floral motifs and inscriptions rendered in the cursive script. Because of the excessive amount of iridescence on the piece, the inscription in only one of the units is clearly visible. It reads أهل له or “worthy of (it).”

The rim has a loosely executed scroll, inspired by calligraphy, set within two solid bands. The exterior has a similar scroll drawn in a larger scale.

The off-white paste and the white engobe seen in the other types of Syrian wares were also employed in luster-painted pottery. The transparent glaze with a greenish tone, showing a tendency to crackle and collect in pools, can also be found on all Ayyubid pottery.

An almost identical piece is owned by the Metropolitan Museum of Art, New York,³⁸ while close to a dozen bowls of this type are in the Freer collection.

35

Jug

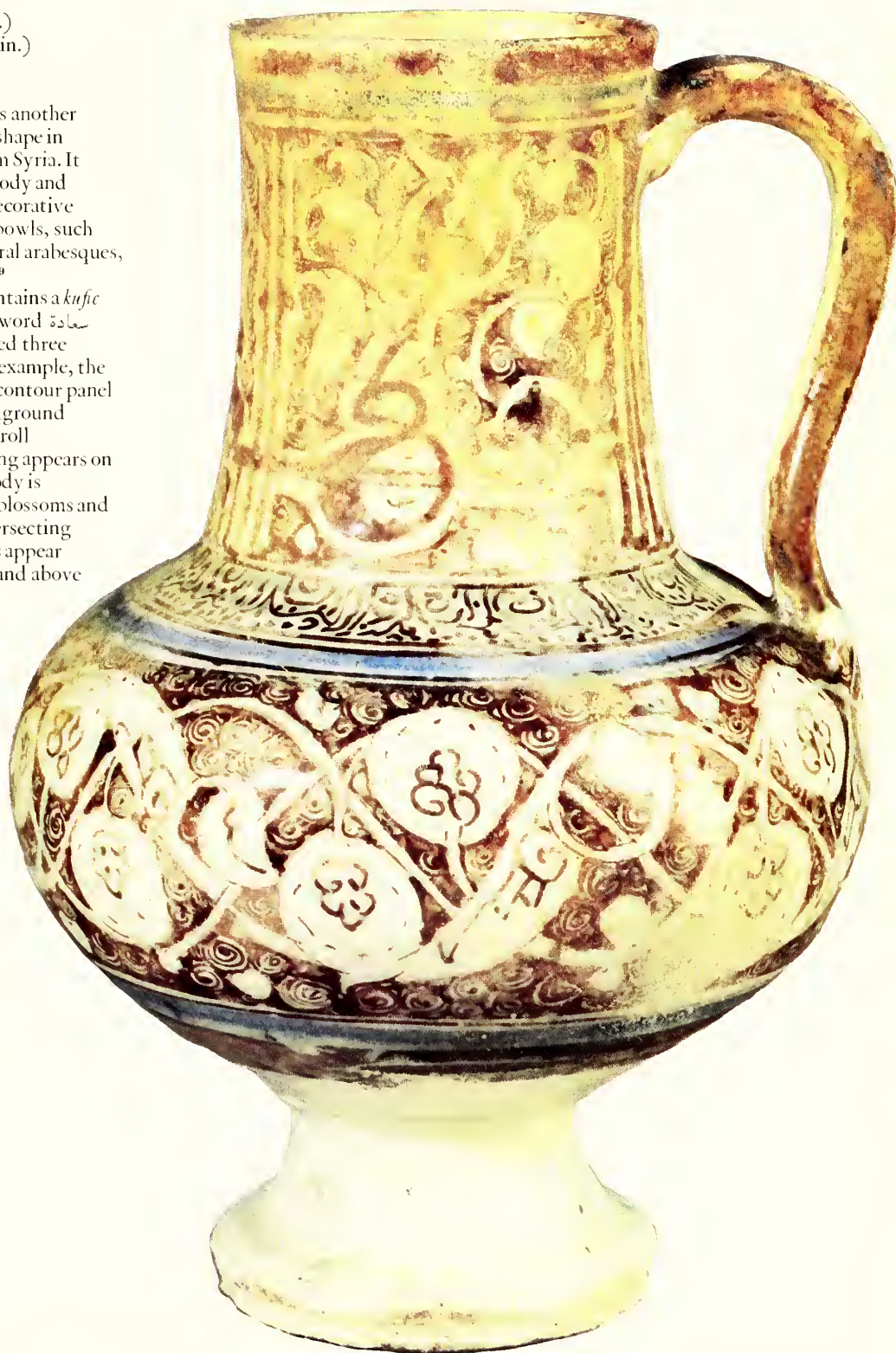
Underglaze painted in blue, overglaze painted in brownish red luster
 Syria, late 12th–early 13th century

Height: 19.5 cm. (7 $\frac{11}{16}$ in.)Diameter: 13.2 cm. (5 $\frac{3}{16}$ in.)

o8.140

The single-handled jug is another frequently encountered shape in luster-painted wares from Syria. It has a tall neck, bulbous body and high foot and the same decorative repertoire found on the bowls, such as horizontal bands of floral arabesques, inscriptions and scrolls.³⁹

The neck of the jug contains a *kufic* inscription in which the word سعادة or “happiness” is repeated three times. Like the previous example, the letters are enclosed by a contour panel and placed against a background of concentric circles. A scroll resembling cursive writing appears on the shoulder while the body is decorated with rounded blossoms and split leaves joined by intersecting branches. Thin blue lines appear around the lip, shoulder and above the foot.





36
Basin
Underglaze painted in blue, overglaze
painted in brownish red luster
Syria, late 12th–early 13th century

Height: 10.5 cm. (4 $\frac{1}{8}$ in.)
Diameter: 28.0 cm. (11 in.)
o8.148

One of the unique pieces made in the Syrian workshops is this basin, the shape of which reveals the influence of contemporary metalwork (see no. 27). The *kufic* inscription set against a concentric scroll ground and the two mock handles attached to the outer walls also suggest a metal prototype.

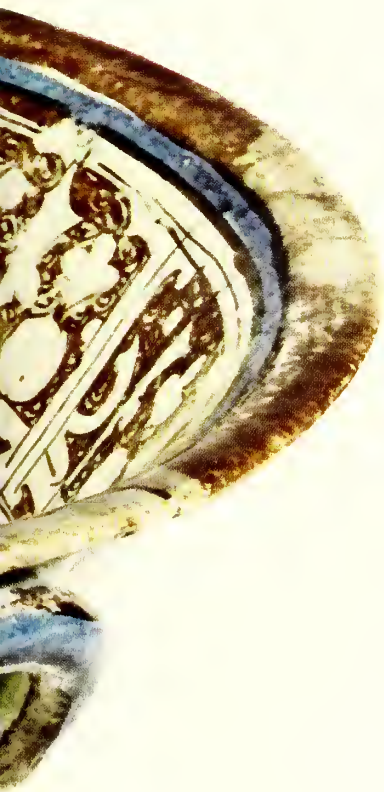
The medallion in the base is decorated with a large floral arabesque composed of stylized blossoms and leaves. Two bands filled with trilobed

leaves and scrolls, imitating the cursive script, encircle the central medallion. The walls reveal a highly ornate *kufic* inscription, bordered by thin blue lines. The word سعادة or “happiness” is repeated 12 times in this zone.

The exterior is broken into a series of vertical panels by blue and brownish red luster strokes; the panels are filled with simulated cursive inscriptions and scrolls. The two

handles are executed in relief and are painted in blue and luster.

The manner of decoration and the employment of certain motifs, such as the large central arabesque, bands with trilobed leaves and scrolls imitating writing, are very close to those seen in numbers 34 and 35. Since all three pieces are executed in an identical technique and style, it is highly probable that they were made in the same workshop.





36
Basin
Underglaze painted in blue, overglaze
painted in brownish red luster
Syria, late 12th–early 13th century

Height: 10.5 cm. (4 $\frac{1}{8}$ in.)
Diameter: 28.0 cm. (11 in.)
08.148

One of the unique pieces made in the Syrian workshops is this basin, the shape of which reveals the influence of contemporary metalwork (see no. 27). The *kufic* inscription set against a concentric scroll ground and the two mock handles attached to the outer walls also suggest a metal prototype.

The medallion in the base is decorated with a large floral arabesque composed of stylized blossoms and leaves. Two bands filled with trilobed

leaves and scrolls, imitating the cursive script, encircle the central medallion. The walls reveal a highly ornate *kufic* inscription, bordered by thin blue lines. The word *sa'ada* or "happiness" is repeated 12 times in this zone.

The exterior is broken into a series of vertical panels by blue and brownish red luster strokes; the panels are filled with simulated cursive inscriptions and scrolls. The two

handles are executed in relief and are painted in blue and luster.

The manner of decoration and the employment of certain motifs, such as the large central arabesque, bands with trilobed leaves and scrolls imitating writing, are very close to those seen in numbers 34 and 35. Since all three pieces are executed in an identical technique and style, it is highly probable that they were made in the same workshop.

37
Oblong Stand
Molded and turquoise glazed
Syria, late 12th–early 13th century

Height: 18.7 cm. ($7\frac{3}{8}$ in.)
Width: 28.6 cm. ($11\frac{5}{16}$ in.)
Depth: 14.1 cm. ($5\frac{9}{16}$ in.)
09.42

A substantial number of Syrian wares are utilitarian objects, such as lamps, small tables and stands, decorated in relief and covered with monochrome glazes. This example was executed from a mold which left the design in low relief. The glaze, almost invisible under the iridescence, was originally turquoise and was applied directly to the off-white paste.

The object is shaped like a hollow oblong box which rests on four stubby feet. The upper surface is decorated with arabesques and possesses two fairly large holes, thought to be for the placement of bowls. Each of the two short sides depicts an arch with arabesques adorning the spandrels. The longer sides possess an inscription written in *naskhi* script with floral motifs filling the background. The message reads *الاقبال لصحبه* or “prosperity to the owner.”

The stand was most likely placed on a table and used during meals or when refreshment was being served. Since the diameter of the holes (7 cm. or $2\frac{3}{4}$ in.) is fairly small, rather diminutive cups or bowls must have been inserted into the openings.

A number of rectangular stands with two openings at the top have been published; some are molded and turquoise glazed while others are painted in luster and blue. Syrian potters also produced three-sided stands which have three holes at the top.⁴⁰ These pieces are generally decorated with arabesques, inscriptions, and at times with confronting animals, such as sphinxes. Several examples bear the same inscription which appears on the Freer stand.⁴¹





37
Oblong Stand
Molded and turquoise glazed
Syria, late 12th–early 13th century

Height: 18.7 cm. (7½ in.)
Width: 28.6 cm. (11⅝ in.)
Depth: 14.1 cm. (5⅙ in.)
09.42

A substantial number of Syrian wares are utilitarian objects, such as lamps, small tables and stands, decorated in relief and covered with monochrome glazes. This example was executed from a mold which left the design in low relief. The glaze, almost invisible under the iridescence, was originally turquoise and was applied directly to the off-white paste.

The object is shaped like a hollow oblong box which rests on four stubby feet. The upper surface is decorated with arabesques and possesses two fairly large holes, thought to be for the placement of bowls. Each of the two short sides depicts an arch with arabesques adorning the spandrels. The longer sides possess an inscription written in *naḥḥi* script with floral motifs filling the background. The message reads *الإقبال لصحة* or “prosperity to the owner.”

The stand was most likely placed on a table and used during meals or when refreshment was being served. Since the diameter of the holes (7 cm. or 2¾ in.) is fairly small, rather diminutive cups or bowls must have been inserted into the openings.

A number of rectangular stands with two openings at the top have been published; some are molded and turquoise glazed while others are painted in luster and blue. Syrian potters also produced three-sided stands which have three holes at the top.⁴⁰ These pieces are generally decorated with arabesques, inscriptions, and at times with confronting animals, such as sphinxes. Several examples bear the same inscription which appears on the Freer stand.⁴¹



Hexagonal Table
Molded and pierced, turquoise glazed
Made by Muhammad
Syria, late 12th–early 13th century

Height: 38.7 cm. (15¼ in.)
Width: 28.8 cm. (11⅓ in.)

09.41

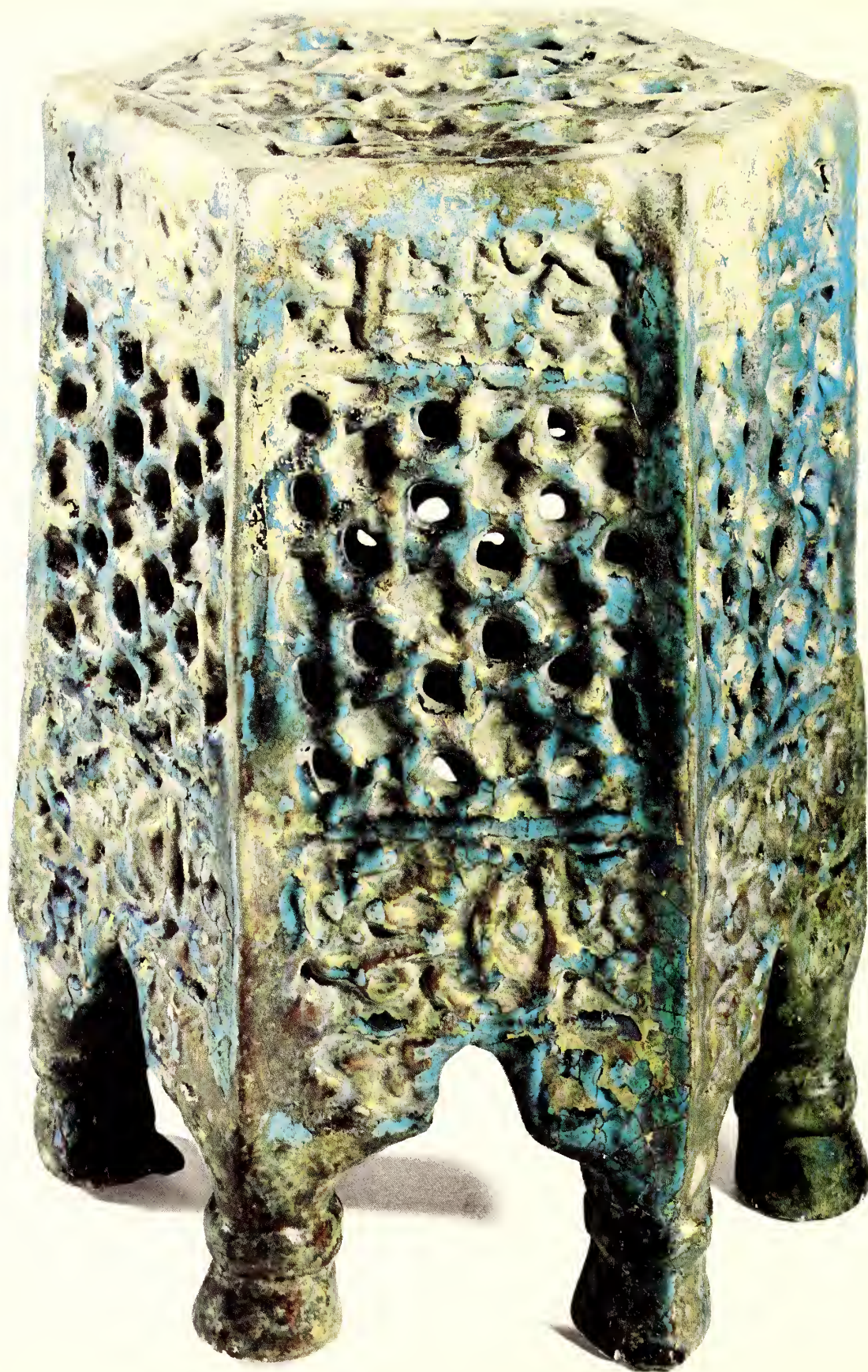
This example is a larger floor model of the stand discussed previously (no. 37). The top is decorated with 12 pierced roundels which alternate with six-pointed stars. Each of the six sides is identical: a panel of *kufic* inscriptions appears above a square unit which is decorated in the same manner as the top, followed by a panel of *naskhi* inscriptions. Below is a trilobed arch which rests on the stubby feet.

The iridescence has camouflaged most of the turquoise glaze. Like the previous stand, this table is also hollow and its inner surface is glazed.

Since the molds and thick glaze were imperfectly applied, the sharpness of the inscriptions has been obliterated. The words in the upper panels can no longer be deciphered. The *naskhi* inscription in the lower panels reads عمل محمد that is, "the work of Muhammad."

Aside from this example, three almost identical hexagonal tables possess the same inscription. They are owned by the Freer Gallery (no. 13.11); the David Collection, Copenhagen; and the Turkish and Islamic Arts Museum, Istanbul.⁴² These three tables were made from the same mold and are the only known examples which bear the signature of Muhammad.

Syria was renowned for the execution of ceramic household furniture. The Freer Gallery owns two other hexagonal tables (nos. 11.1 and 11.2) and another example was published by Arthur Lane.⁴³





Tombstone

Carved and turquoise glazed

Made for Sadullah

Syria, 12th–13th century

Height: 35.7 cm. (14 $\frac{1}{16}$ in.)Width: 26.0 cm. (10 $\frac{1}{4}$ in.)

05.257

As seen from this example, the Syrian potters also executed tiles which were used as headstones for graves. The piece is shaped as a rounded arch which is slightly pointed in the center. It is divided into three portions; the upper two panels contain a cursive inscription which reads *هذه تربة سعد الله* or “this is the *turbat* (tomb) of Sadullah.”

The inscription was carved and the tile was then covered with a deep turquoise glaze which has partially decomposed.

A large number of tiles were among the finds of Rakka and other Syrian sites. The Freer Gallery owns a collection of monochrome-glazed ceramic tiles, most of which are unadorned, large and square pieces. There are also molded corner tiles constructed as two rectangular slabs, joined together at right angles. These pieces were used to face the exteriors and interiors of buildings; they decorated the structures and provided excellent insulation against the elements.

The personage whose name appears on the Freer tombstone is unknown. The small size and rough quality of the piece indicate that it was one of the inexpensive tiles made for the public.



1. The oldest copy, dated 1009, is published in Emmy Wellesz, "An Early al-Sufi Manuscript in the Bodleian Library in Oxford," *Ars Orientalis*, vol. III (1959), pp. 1-26.
2. See nos. 44-52 for Mamluk examples of this work.
3. There exist two illustrated copies of the *Kitab al-Diryak*: the earliest, dated 1199, is in Paris, Bibliothèque Nationale, Arabe 2964; and the other, executed in the mid-13th century, is owned by Vienna, Nationalbibliothek, A. F. 10. A. S. Melikian Chirvani, "Trois Manuscrits de l'Iran Seljoukide," *Ars Orientalis*, vol. XVI (1967), pp. 3-51.
4. Only six volumes with frontispieces have survived: Istanbul, Millet Library, Feyzullah Efendi, nos. 1565 and 1566, vols. XVII and XIX (ca. 1218-19); Cairo, Egyptian National Library, Adab 579, vols. II, IV and XI (the latter dated 1217); and Copenhagen, Royal Library, no. 168, vol. XX (dated 1219). S. M. Stern, "A New Volume of the Illustrated Aghani Manuscript," *Ars Orientalis*, vol. II (1957), pp. 501-502; Melikian Chirvani, "Trois Manuscrits."
5. See nos. 52 and 53 and the preceding discussion.
6. See the two articles by Oleg Grabar, "A Newly Discovered Illustrated Manuscript of the Maqamat of Hariri," *Ars Orientalis*, vol. V (1963), pp. 97-110; "The Illustrated Maqamat of the Thirteenth Century: the Bourgeoisie and the Arts," in *The Islamic City*, Oxford, 1970, pp. 207-222.
7. Three of these copies are in Paris, Bibliothèque Nationale, Arabe 3929 (early 13th century), Arabe 6094 (dated 1222), and Arabe 5847 (dated 1237). The remaining works are in Leningrad, Academy of Sciences, S. 23 (ca. 1220); Istanbul, Süleymaniye Library, Esat Efendi, no. 2916 (dated 1242-58); and London, British Museum, Or. 1200 (dated 1256).
8. Ettinghausen, *Arab Painting*. Hugo Buchthal, "'Hellenistic' Miniatures in Early Islamic Manuscripts," *Ars Islamica*, vol. VII (1940), pp. 125-133. A complete list of manuscripts can be found in Kurt Holter, *Die Islamischen Miniaturhandschriften vor 1350*, Leipzig, 1937; and Hugo Buchthal, Otto Kurz and Richard Ettinghausen, "Supplementary Notes to K. Holter's Check List of Islamic Illuminated Manuscripts Before A.D. 1350," *Ars Islamica*, vol. III (1940), pp. 147-164.
9. The major examples of metalwork executed in this period have been published by D. S. Rice in a series of articles collected in "Studies in Islamic Metalwork: II-III," *Bulletin of the School of Oriental and African Studies*, vol. XV (1953), pp. 61-79 and 229-232. Also by the same author see "The Brasses of Badr al-Din Lulu," *Ibid.*, vol. XII (1950), pp. 627-634; and "Inlaid Brasses from the Workshop of Ahmad al-Dhaki al-Mawsili," *Ars Orientalis*, vol. II (1957), pp. 283-326. Two other pieces are analyzed in Géza Fehérvári, "Ein Ayyubidisches Räuchergefäß mit dem Namen des Sultan al-Malik al-Adil II," *Kunst des Orients*, vol. V (1968), pp. 37-54; and Volkmar Enderlein, "Das Bildprogramm des Berliner Mosul-Beckens," *Forschungen und Berichte*, Berlin, 1973, pp. 7-42.
10. Friedrich Sarre, *Die Keramik von Raqqa*, Berlin, 1921. Jean Sauvaget, "Tessons de Raqqa," *Ars Islamica*, vol. XIII-XIV (1948), pp. 31-45. Ernst J. Grube, "Raqqa-Keramik in der Sammlung des Metropolitan Museum in New York," *Kunst des Orients*, vol. IV (1965), pp. 42-78.
11. Friedrich Sarre, *Keramik und andere Kleinfunde der Islamischen Zeit von Baalbek*, Berlin-Leipzig, 1925. Paul J. Riis and Vagn Poulsen, *Hama: les Verreries et Poteries Médiévales*, Copenhagen, 1957.
12. C. E. Dubler, "Diyuskuridis," *Encyclopedia of Islam*, 2nd ed., Leiden, 1965, vol. II, pp. 349-350; Charles J. Singer, "The Herbal in Antiquity," *Journal of Hellenistic Studies*, vol. XLVII (1927), pp. 1-52; Robert T. Gunther, *The Greek Herbal of Dioscorides*, Oxford, 1934; Curtis Sprengel, *Pedanii Dioscoridis Anazarbei De Materia Medica*, Lipsiae, 1830.
13. For the most complete study of these manuscripts see Ernst J. Grube, "Materialien zum Dioskurides Arabicus," in *Aus der Welt der Islamischen Kunst*, pp. 163-194. The fragmentary sections, not mentioned in the above article, are in Prince Sadruddin Aga Khan's Collection, Geneva, published in Anthony Welch, *Collection of Islamic Art*, Geneva, 1972, vol. I, pp. 21-28.
14. The manuscripts formerly in the Aya Sofya collection of Istanbul have now been transferred to the Süleymaniye Library in the same city.

15. Hugo Buchthal, "Early Islamic Miniatures from Baghdad," *Journal of the Walters Art Gallery*, vol. V (1942), pp. 19-40; Florence E. Day, "Mesopotamian Manuscripts of Dioscorides," *Bulletin of the Metropolitan Museum of Art*, vol. VIII, no. 49-50 (May, 1950), pp. 274-280.

16. Amy Briggs, "Timurid Carpets," *Ars Islamica*, vol. VII (1940), fig. 13.

17. The master, Ibrahim ibn Mawaliya, made the undated ewer which is now in the Louvre, Paris. One of his pupils, Ismail ibn Ward, was responsible for the box dated 1220 in the Benaki Museum, Athens. For a thorough study of these two pieces as well as the Freer ewer see Rice, "Studies in Islamic Metalwork: II."

18. For the works of another contemporary atelier see Rice, "Inlaid Brasses." "Al-Mawsili" used in the names of the artists literally means from Mawsil, that is, from Mosul.

19. The basin was formerly in the collection of Duc d'Arenberg of Brussels; however, the design on the base is not the coat of arms of his family. In 1903 the piece was exhibited in Paris and in 1910 it was shown in Munich. Gaston Migeon, *Exposition des Arts Musulmans au Musée des Arts Décoratifs*, Paris, 1903, pls. 11 and 12. F. Sarre and F. R. Martin, *Die Ausstellung von Meisterwerken Mubammedanischer Kunst in München, 1910*, Munich, 1912, vol. I, pp. 6-8; vol. II, pl. 147. Neither publication mentions the existence of the coat of arms on the base which has been identified by Helmut Nickel. Dr. Nickel suggests that it belongs to a cadet branch of the Bornioli family since there are inconsistencies in the code of hatching the colors. The Bornioli counts were from the Dauphiné, Nivernais, Normandie, Provence and Rouergue regions of France. See Johannes B. Rietstap, *Armorial Général*, London, 1965, vol. II, p. 1207. The Latin motto, deciphered by Walter Angst, reads: *de pulvis hostibus anglis rosa (anglis rosa) non fert iste ingum - solum dulce ingum Christi de lucae stemmate Taurus*, meaning "neither the beating of the enemy nor the increase of the rose make me bear that yoke (it is not the beating of the enemy English rose that makes me bear that yoke) - only the sweet yoke of Christ is the garland of light for the bull." It is implied that the design was engraved after an English victory over the French.

20. Although the inscription reads *abu Mubammad*, that is, "the father of Muhammad," it should be *ibn Mubammad*, "the son of Muhammad." This personage, whose full name is al-Malik al-Kamil I Nasr al-Din Muhammad (1218-38 in Egypt and 1238 in Damascus), was the father of Najm al-Din. The correct genealogy appears on the inscription placed inside the basin.

21. This inscription was published in Étienne Combe, Jean Sauvaget and Gaston Wiet (ed.), *Répertoire Chronologique d'Épigraphie Arabe*, Cairo, 1941, vol. XI, no. 4302 on pp. 199-200.

22. The plate, formerly in the collection of Nicholas Landau, is published in Gaston Wiet, "Inscriptions Mobilieres de l'Égypte Musulmane," *Journal Asiatique*, vol. CCXLVI (1958), pp. 239-241, pl. II; and A. S. Melikian Chirvani, *L'Art du Metal Islamique*, Paris, 1971, no. 153. For the Cairo basin see Wafiyah Izzi, "An Ayyubid Basin of al-Salih Najm al-Din," in *Studies in Islamic Art and Architecture in Honor of Professor K. A. C. Creswell*, Cairo, 1965, pp. 253-259. The Michigan basin is published in Oleg Grabar, "Two Pieces of Islamic Metalwork at the University of Michigan," *Ars Orientalis*, vol. IX (1961), pp. 360-366.

23. D. S. Rice, "Studies in Islamic Metalwork: I," *Bulletin of the School of Oriental and African Studies*, vol. XIV (1952), p. 572.

24. This basin is in the Louvre, Paris. Rice, "Inlaid Brasses," pp. 301-311, figs. 26-29, 31 and 33-35, pls. 6-9.

25. Both pieces are in the Museum für Islamische Kunst, Berlin. Ernst Kühnel, "Zwei Mosulbronzen und Ihr Meister," *Jahrbuch der Preussischen Kunstsammlungen*, vol. LX (1939), pp. 1-20.

26. This remarkable piece, made in Syria or Egypt, has been thoroughly analyzed and published by D. S. Rice, *The Baptistère de Saint-Louis*, Paris, 1953; and "The Blazons of the Baptistère de Saint-Louis," *Bulletin of the School of Oriental and African Studies*, vol. XIII (1950), pp. 367-380.

27. D. S. Rice, "Arabic inscriptions on a Brass Basin made for Hugh IV de Lusignan," in *Studi Orientalistici in onore di Giorgio Levi Della Vida*, vol. II, pp. 390-402.

28. The dimensions of the pit are: diameter 10.1 cm. (4 in.), depth 18.7 cm. (7½ in.).

29. The models for the scenes on the canteen and comparable Islamic pieces are published in Laura T. Schneider, "The Freer Canteen," *Ars Orientalis*, vol. IX (1973), pp. 137-156.

30. The portion which has been read by Dr. Yousif Ghulam contains the words: *al-izz al-daim w'al-ikbal al-shamil w'al-jadd al-zaid*, that is, "eternal glory and continuing favor and increasing riches."

31. Acc. no. 58.2. Published in John A. Pope, "An Early Ming Porcelain in Muslim Style," in *Aus der Welt der Islamischen Kunst*, pp. 357-375.

32. Lane, *Early Islamic Pottery*, pl. 35B.

33. Sauvaget, "Tessons de Raqqa," pp. 31-45, fig. 11. Lane, *Early Islamic Pottery*, pls. 78 and 79. Grube, "Raqqa-Keramik," figs. 28, 30-34.

34. Riis and Poulsen, *Hama*, p. 187. Sarre, *Die Keramik von Baalbek*, fig. 22. Musée de l'Art Arabe du Caire, *La Céramique Égyptienne*, pls. 122 and 124.

35. Pézard, *La Céramique Archaique de l'Islam*, pl. CXLVIII; Grube, "Raqqa-Keramik," fig. 14.

36. R. L. Hobson, *A Guide to the Islamic Pottery of the Near East*, London, 1932, pl. VII.

37. Grube, "Raqqa-Keramik" figs. 5-10, particularly fig. 7; Lane, *Early Islamic Pottery*, pl. 80A.

38. Grube, "Raqqa-Keramik," fig. 22.

39. Several identical jugs are in the collection of the Metropolitan Museum of Art, New York. *Ibid.*, figs. 24-26.

40. *Ibid.*, figs. 3 and 4. Lane, *Early Islamic Pottery*, pl. 60B. Le Musée Nicolas Sursock, *Art Islamique*, nos. 29-31. Vagn Poulsen, "Islamisk Fayence fra Syrien," in C. L. Davids Samling: *Fjerde del Jubilaumsskrift 1945-70*, Copenhagen, 1970, vol. IV, nos. 22 and 24 on pp. 289 and 291.

41. Grube, "Raqqa-Keramik," fig. 3. Le Musée Nicolas Sursock, *Art Islamique*, no. 31. Poulsen, "Islamisk Fayence," no. 24.

42. *Ibid.*, no. 23 on p. 290; Can Kerametli, "Asya'dan Anadolu' ya Türk Çini ve Seramik Sanati," *Türkiyemiz*, vol. III, no. 9 (Feb., 1973), p. 12.

43. *Early Islamic Pottery*, pl. 45B.

Art of the Mamluks and Post-Mongol Irak

Following the pattern of other Islamic dynasties of the Near East, the Ayyubids relied upon their professional Turkish guards, the Mamluks, which literally means "those owned." The Mamluks rose to power during the reign of Sultan Najm al-Din Ayyub and overthrew their masters in 1250. They continued the Sunnite policy of the Ayyubids and installed in Cairo the uncle of the last Abbasid caliph, who was one of the very few to escape the Mongol massacre of Baghdad.

The Mamluks, who ruled for more than two and a half centuries, are distinguished by two separate lines: the Bahri (1250–1382), the slaves of the Ayyubids; and the Burji (1382–1517), the *mamluks* of the Bahri sultans. Ethnically the Bahri Mamluks were Kipchaks from southern Russia whereas the Burji were primarily Circassians from the Caucasus.

The early political history of the Mamluks is most impressive. They defeated Hulagu's army at the celebrated battle at Ain Jalut in 1260, stopping the destructive advance of the Mongols. By the end of the 13th century the last of the Crusaders had been forced to evacuate Syria and Palestine, and the feared Shiite sect of the Assassins was crushed and rendered harmless.

The Mamluks acquired well-deserved fame as the defenders of the true faith against the pagan Mongols, Christians and heretodox Shiites. Their boundaries soon extended from Cyrenaica on the Mediterranean to the Taurus Mountains in southern Anatolia, incorporating Nubia, the Hijaz, Syria and Palestine.

Their invincible armies formed a major threat to the Ilkhanids (1256–1353), a branch of the Mongols who had converted to Islam and settled in Irak and Iran; and to the Ottomans (1281–1923) who were rapidly expanding from their small principality situated in the northwestern corner of Anatolia.

The Ilkhanids were soon weakened by continual warfare and internal strife and their domains were divided among a number of local dynasties. The Jalairids (1336–1432) inherited Irak and Azerbaijan, and made Baghdad their capital. They eventually succumbed to the wave of a new invasion from the East, this time under the leadership of Timur, or Tamerlane. The Timurids (1370–1506) settled in Iran and founded a great empire which in time was replaced by the Safavids (1501–1732).

In the 16th century the Ottomans evolved as the strongest power within the world of Islam. Sultan Selim I defeated the Safavids in 1514 and overpowered the Mamluks at Marj Dabik (near Aleppo) in 1516, capturing Cairo within the next year. The last member of the Abbasids was taken to the court at Istanbul (formerly Constantinople) and the caliphate, as well as the holy sites in the Hijaz, were passed on to the Ottomans.

During the reign of the ensuing sultan, Süleyman the Magnificent, the Fertile Crescent was subjugated. In 1535 Baghdad became a part of the Ottoman Empire which now stretched from the heart of Europe to the Persian Gulf and the Red Sea, embracing the entire Near East and the northern shores of Africa.

Under Mamluk rule, Egypt and Syria enjoyed a tremendous economic and cultural revival. The sultans and their officials supported architectural activities and commissioned a vast number of manuscripts, ceramics, glass, metalwork and textiles. The science of heraldry was extensively developed during this period with each corps within the complex hierarchy of the system identified by its own blazon. These blazons appear on the objects made for the rulers and their amirs, or officers, enabling us to date a great number of pieces.¹

The architecture of the period is distinguished by its monumental size and superb use of stone. The mosques, madrasas and mausoleums of such great sultans as Baybars, Kalaun, Hasan and Kait Bey in Cairo are among the most outstanding examples of Islamic architectural genius.²

The art of the book flourished in the 14th century; spectacular Korans were commissioned by the members of the court (nos. 40–43) and the secular works of the previous age were recopied. Among the illustrated manuscripts are several versions of the *Makamat*,³ *Automata* (nos. 44–52) and the *Kalila wa Dimna* (nos. 53–54). The stylistic features of Mamluk paintings reveal the influence of the classical period as well as of Central Asia and the Far East. Certain elements, such as phoenix, lotus blossom, peony and cloud bands, were introduced into the artistic vocabulary by the Mongols. The miniatures are characterized by their highly decorative and stylized figures, minimum settings, and abundant use of gold and primary colors.

Competing with the manuscript activities of Egypt and Syria was Baghdad, a most prolific center under the Jalairids. During the relatively short life span of this dynasty, the production of illustrated manuscripts was extensive. A limited number of works reflect the vestiges of the classical period (nos. 55–70) while the majority of manuscripts show the evolution of a new style and iconography which formed the basis of the great painting tradition of Iran, reaching its epitome under the Timurids in the 15th century.⁴

The most renowned achievement of the Mamluks is seen in the execution of enameled and gilded glass, the best examples of which were made in Syria.⁵ The decoration was applied in opaque vitreous enamels and gold, and fixed by firing. Diverse pieces, such as bowls, goblets, beakers, vases, bottles and flasks, are

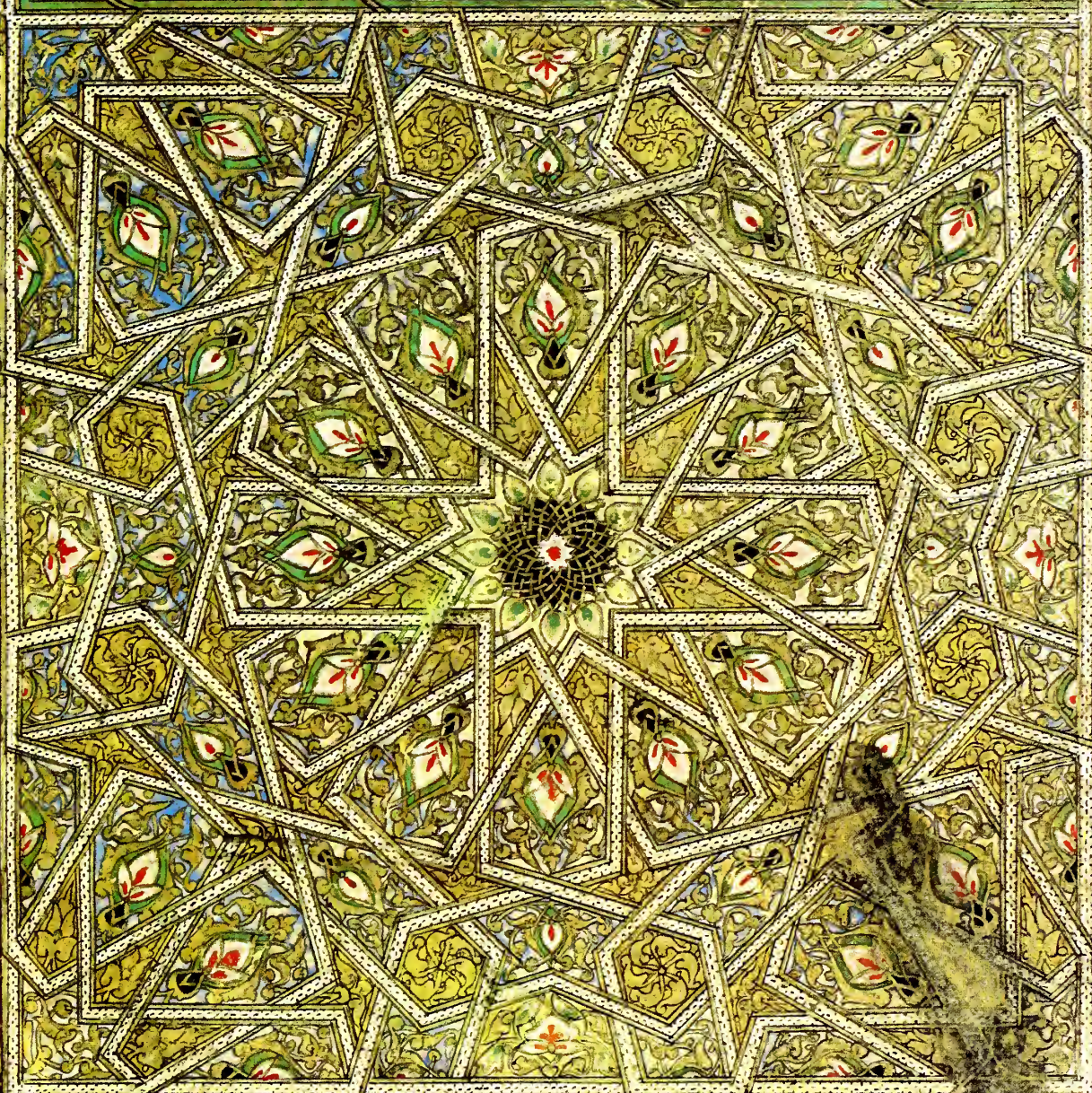
adorned with inscriptions, heraldic emblems, arabesques, and human and animal figures (nos. 71–77). Mamluk glass was in great demand throughout the world and was imported to various countries. It influenced Venice which became the major center for the glass industry after the fall of the Mamluks.

A parallel development can be seen in the production of inlaid metalwork which was also introduced to the West. The techniques perfected by the Ayyubid masters were revived by the Mamluk artists who created stunning examples of basins, ewers, candlesticks and even large tables and Koran cases.⁶ The majority of the brass objects are inlaid with silver and gold, adorned with prominent inscriptions and geometric compositions mixed with arabesques and animals (nos. 78–80). The technique of inlaying was gradually replaced by engraving, and there was a decline in Mamluk metalwork toward the end of the 15th century.

Very few intact pieces of Mamluk pottery have survived.⁷ The existing examples generally follow the types established in the earlier periods, such as molded or carved monochrome-glazed pottery, underglaze-painted pieces, slip-painted or sgraffiato wares. A series of heavy, coarsely executed ceramics shows a more typical Mamluk character. These pieces use intense green, brown and yellow glazes with carved or incised designs; their decorative repertoire is generally restricted to bold inscriptions and heraldic emblems. There also exist imitations of Chinese celadons and blue and white wares.

After the 16th century Cairo, Damascus and Baghdad continued to be active, but the center of artistic production shifted to Istanbul, the capital of the Ottoman Empire. The Mamluk period was the last creative age in the Arab world. The artists reemployed the techniques and themes developed in the past and produced superb objects in which calligraphy and arabesque found ultimate expression. Their works influenced the arts of Venice and Istanbul as well as the cultural centers of Iran.

الحمد لله الذي جعل في كتابه
الحكمة والهدى والبرهان
والنور والرحمة والبركة



والله اعلم بالصواب
الحمد لله الذي جعل في كتابه
الحكمة والهدى والبرهان

Bookbinding

Leather on pasteboard; blind tooled and gold tooled

Made for Amir Aytmish al-Bajasi
Egypt, late 14th century

Height: 37.1 cm. (14 $\frac{5}{8}$ in.)

Width (single cover): 27.5 cm.
(10 $\frac{7}{8}$ in.)

45.15

The exterior of the binding is covered with brown leather, blind tooled and gold tooled. Gold lines and dots adorn the outer borders, central medallions and corner quadrants; traces of blue pigment appear in the outlines of the borders and medallions.

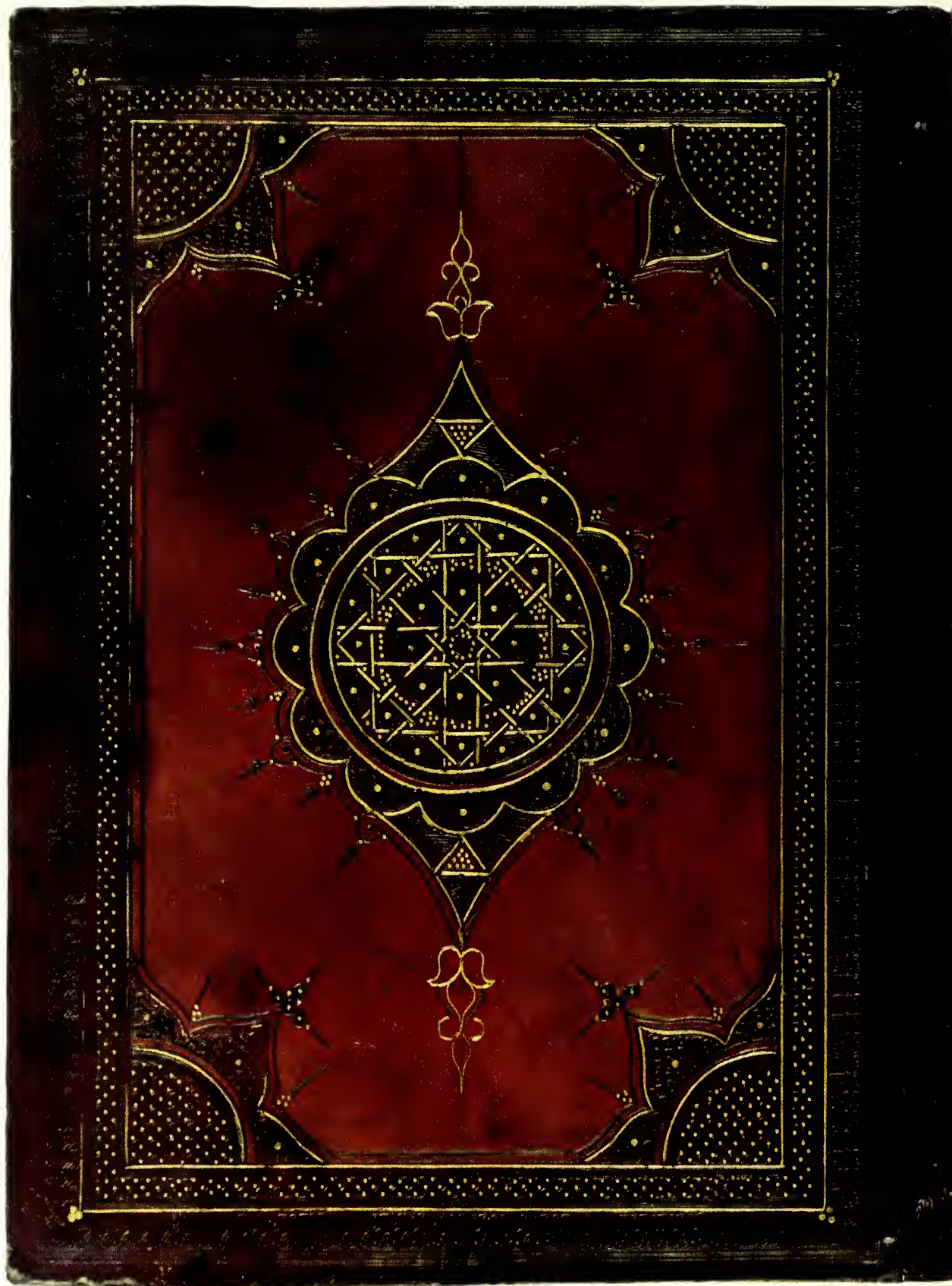
Each of the two covers contains a central medallion composed of geometric interlaces arising from an eight-pointed star. The medallion, set against a plain field, is enclosed by a scalloped border and possesses finials which extend on its vertical axis. The four corner quadrants, filled with braided patterns, are surrounded by ogival petals, repeating the overall design of the central medallion. Two borders, decorated with braids and arabesques, frame the covers.

The richly adorned flap contains the same two borders but here the field is completely covered with interlacing patterns. The medallion of the flap has a geometric design utilizing a central ten-pointed star.

The interior of the binding lacks a doublure; it is covered with pale brown leather, decorated with arabesques executed in a lighter shade.

This bookbinding can be dated fairly accurately and is a part of a 30-volume Koran. Each volume most likely contained a *juz*, or the prayers for each day of the month. Aside from the Freer example, there exist five other covers which belong to this set.⁸ Two of these have sections of the Koran which contain the name of the donor.⁹

The dedication states that the Koran was made for Amir Aytmish al-Bajasi who presented it to the library of a madrasa built and endowed by him. This structure originally stood near the Bab al-Wazir, one of the gates of Tripoli in Lebanon. Aytmish, a commander of Sultan Barkuk (1382–89 and 1390–99), died in 1400 which provides the *terminus ante quem* date for the Koran and its bindings.¹⁰





490
Bookbinding
Leather on pasteboard; blind tooled
and gold tooled
Made for Amir Aytмыш al-Bajasi
Egypt, late 14th century

Height: 37.1 cm. (14½ in.)
Width (single cover): 27.5 cm.
(10¾ in.)

45.15

The exterior of the binding is covered with brown leather, blind tooled and gold tooled. Gold lines and dots adorn the outer borders, central medallions and corner quadrants; traces of blue pigment appear in the outlines of the borders and medallions.

Each of the two covers contains a central medallion composed of geometric interlaces arising from an eight-pointed star. The medallion, set against a plain field, is enclosed by a scalloped border and possesses finials which extend on its vertical axis. The four corner quadrants, filled with braided patterns, are surrounded by ogival petals, repeating the overall design of the central medallion. Two borders, decorated with braids and arabesques, frame the covers.

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Two Pages from a Koran
Ink, color and gold on paper
Egypt, mid-14th century

Height: 40.9 cm. (16 $\frac{1}{8}$ in.)
Width (single folio): 32.0 cm.
(12 $\frac{5}{8}$ in.)

30.55

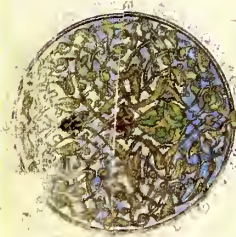
This spectacular double page contains two verses from the Koran surrounded by an elaborate composition utilizing geometric and floral elements. Each page has two borders which encase the rectangular field on three sides, excluding the edge next to the binding. The outermost and wider border contains an arabesque design which is repeated in the circular ornament placed in the middle of the margin; the inner border reveals a braided pattern. A band filled with a floral scroll surrounds the central portion on four sides.

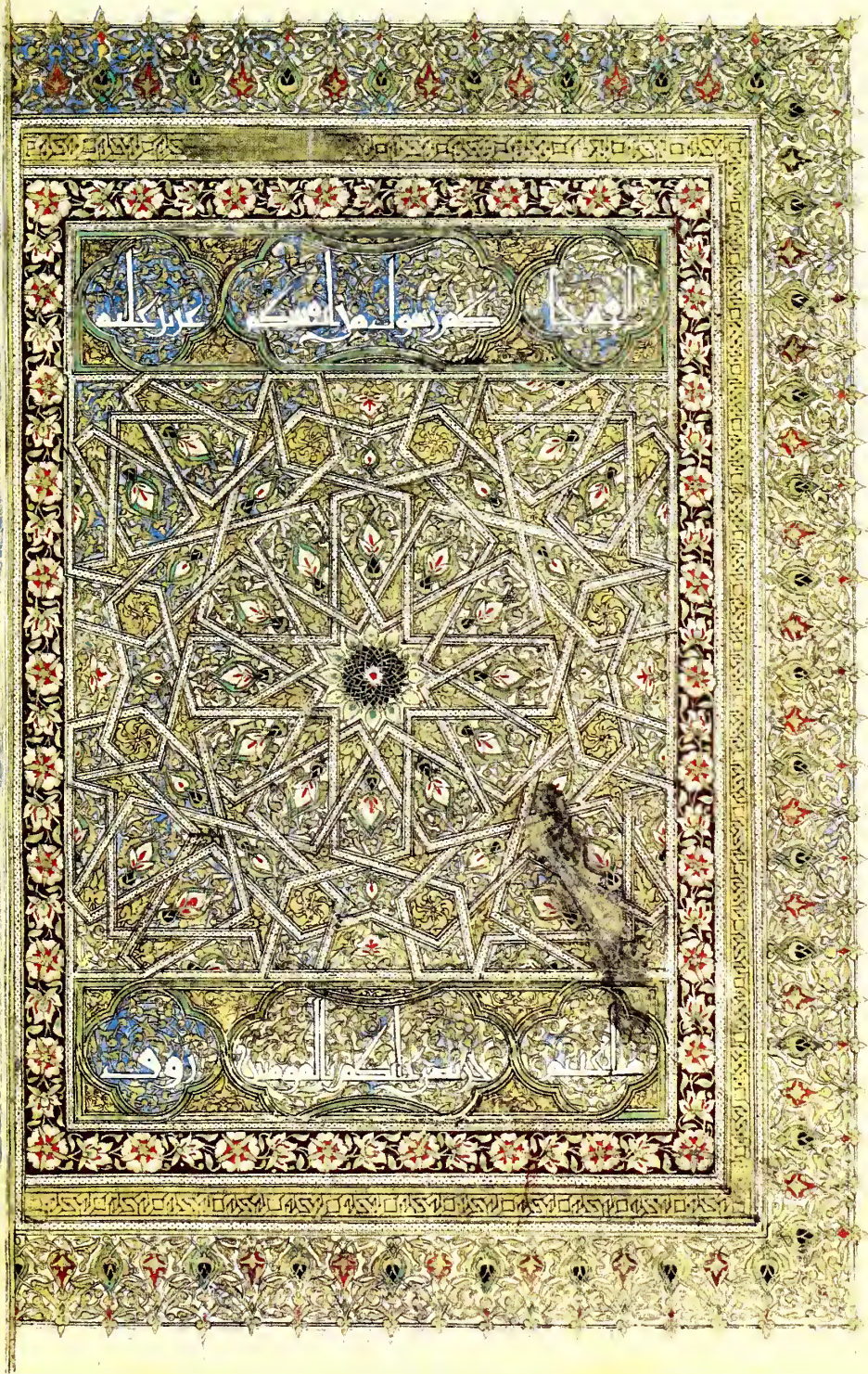
The central portion is divided into three units, the upper and lower of which are narrower and contain the verses which are enclosed by cartouches. The verses are rendered in white *kufic* script and are placed against a gold scroll. The square unit in the middle reveals an intricate geometric pattern which radiates from a 12-pointed star; the zones between the interlacing braided bands are filled with blossoms, leaves and arabesques. Similar braided bands frame the three units of the central portion and the outer borders.

The passage is from Sura IX, *The Immunity*, verses 128 and 129:

Certainly an Apostle has come to you among yourselves, grievous to him is your falling into distress, excessively solicitous respecting you, to the believers [he is] compassionate, merciful.

But if they turn back, say: God is sufficient for me, there is no God but He; on Him do I rely, and He is the Lord of mighty power.





On the reverse of these folios are the preceding and ensuing sections of the manuscript. The text is written in *thuluth* script, 12 lines to a page, and is adorned with illuminated headings and verse stops. The Freer Gallery owns four other folios from this work in addition to these pages.

The two most outstanding features of Mamluk art can be observed in this example: the precise execution of a highly complex geometric design (also seen in contemporary bookbindings, no. 40) and the naturalistic representation of the floral elements, particularly the lotus blossom which frequently appears in post-Mongol art (compare with nos. 53, 73, 76 and 78).

The grandiose size and refined execution of the double folios suggest that the original manuscript was commissioned by the court. An almost identical page appears in the Koran made for Arghun Shah, dated between 1368 and 1388.¹¹



41
Two Pages from a Koran
Ink, color and gold on paper
Egypt, mid-14th century

Height: 40.9 cm. (16½ in.)
Width (single folio): 32.0 cm.
(12½ in.)

30.55

This spectacular double page contains two verses from the Koran surrounded by an elaborate composition utilizing geometric and floral elements. Each page has two borders which encase the rectangular field on three sides, excluding the edge next to the binding. The outermost and wider border contains an arabesque design which is repeated in the circular ornament placed in the middle of the margin; the inner border reveals a braided pattern. A band filled with a floral scroll surrounds the central portion on four sides.

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Height: 40.9 cm. (16 $\frac{1}{8}$ in.)

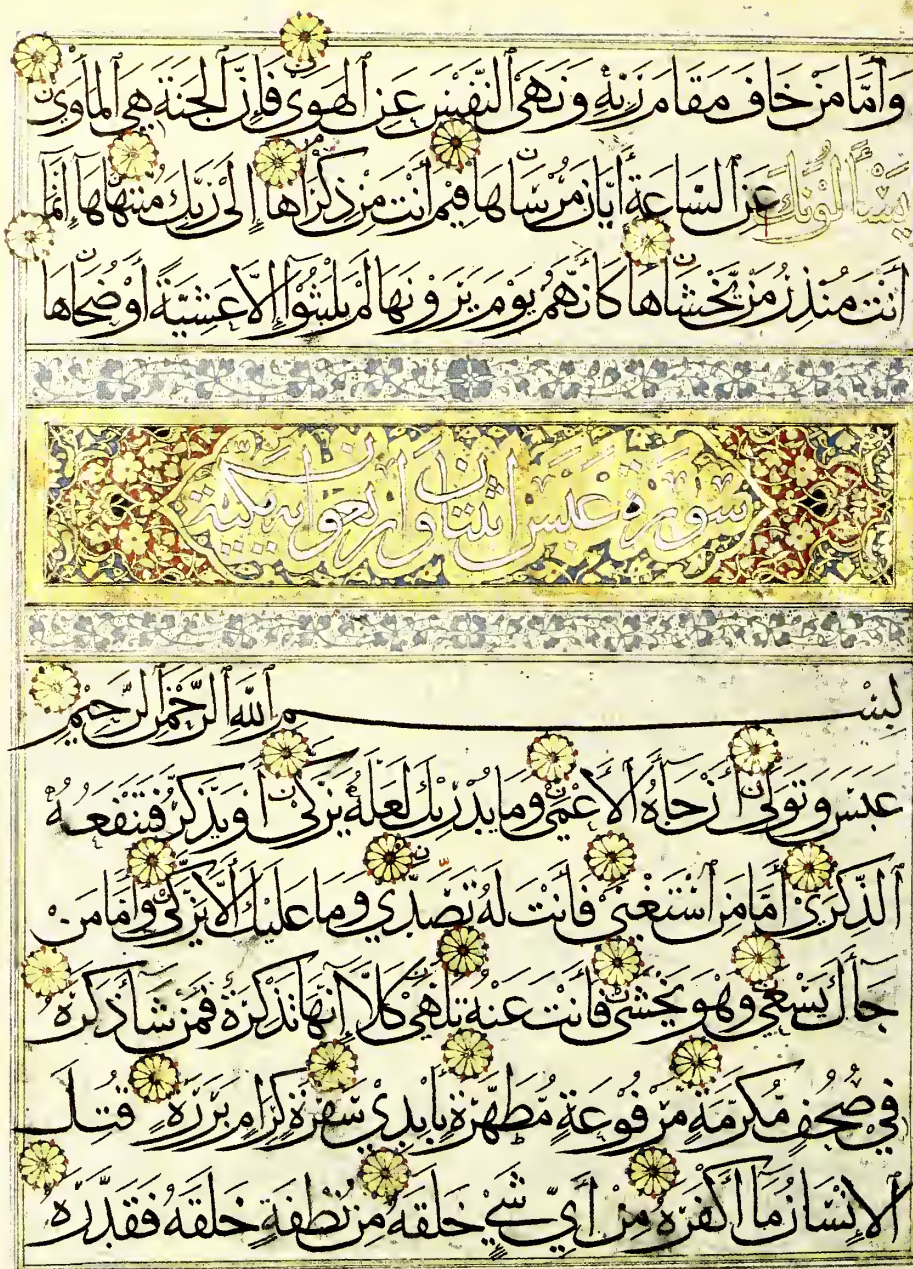
Width (single folio): 32.0 cm.
(12 $\frac{5}{8}$ in.)

30.59v-30.56r

These two folios are from the same manuscript as the previous double-page illumination (no. 41). The text is written in black *thuluth* script; the decorative chapter headings contain the same style of writing rendered in white. This type of script with large and elaborately rendered letters is a variation of the cursive hand. The *thuluth* was perfected under the Mamluks and was used not only in manuscripts but also in architectural decoration and on portable objects, such as glass, metalwork and ceramics (see nos. 73, 74, 76 and 78).

The folio on the right has an illuminated chapter heading on the top of the page. Two panels with loosely executed floral arabesques appear above and below the heading, which is adorned with gold blossoms. The inscription gives the title of Chapter XLII, *The Sura of the Counsel: Fifty-three Verses*. This page includes the first five verses following the *basmala*, separated by verse stops rendered as gold rosettes.

The opposite page contains the final seven verses from Sura LXXIX and the first 18 verses of the following chapter. The chapter heading appears about the middle of the page and contains the words *The Sura of He Frowned: Forty-two Verses* (revealed at Mecca). Seventy of the chapters in the Koran are said to have been revealed at Mecca and 44 at Medina.



سُورَةُ الشُّورَىٰ مَكِّيَّةٌ وَحَمْدٌ لِلَّهِ

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ
 حَمْدٌ غَسَقَكَ ذَلِكَ يُوحِي إِلَيْكَ وَالَّذِينَ مِنْ قَبْلِكَ اللَّهُ الْعَزِيزُ
 الْحَكِيمُ لَهُ مَا فِي السَّمَوَاتِ وَمَا فِي الْأَرْضِ وَهُوَ الْعَلِيُّ الْعَظِيمُ تَكَادُ
 السَّمَوَاتُ يَنْفَطِرْنَ مِنْ فَوْقِهِنَّ وَالْمَلَائِكَةُ يُسَبِّحُونَ بِحَمْدِ رَبِّهِنَّ
 وَيَسْتَغْفِرُونَ لِلَّذِينَ فِي الْأَرْضِ إِلَّا الَّذِينَ هُمْ اللَّهُ هُوَ الْعَفْوُ الرَّحِيمُ
 وَالَّذِينَ اتَّخَذُوا مِنْ دُونِهِ أَوْلِيَاءَ اللَّهُ حَفِيفٌ عَلَيْهِمْ وَمَا أَنْتَ عَلَيْهِمْ بِوَكِيلٍ
 وَكَذَلِكَ وَجَّهْنَا إِلَيْكَ قُلُوبَ الْعِبَادِ لِنُبَيِّنَ لَكَ آيَاتِ الْقُرْآنِ وَمِنْ جَوْهَرِهَا
 وَيُنَادُّهُمْ لِيَوْمِ الْحَجِّ لَا تَنْفِيهِ فَرِيقٌ فِي الْجَنَّةِ وَفَرِيقٌ فِي السَّعِيرِ

Height: 32.9 cm. (12 $\frac{11}{16}$ in.)
Width (single folio): 24.8 cm.
(9 $\frac{3}{4}$ in.)
48.9r-32.1v

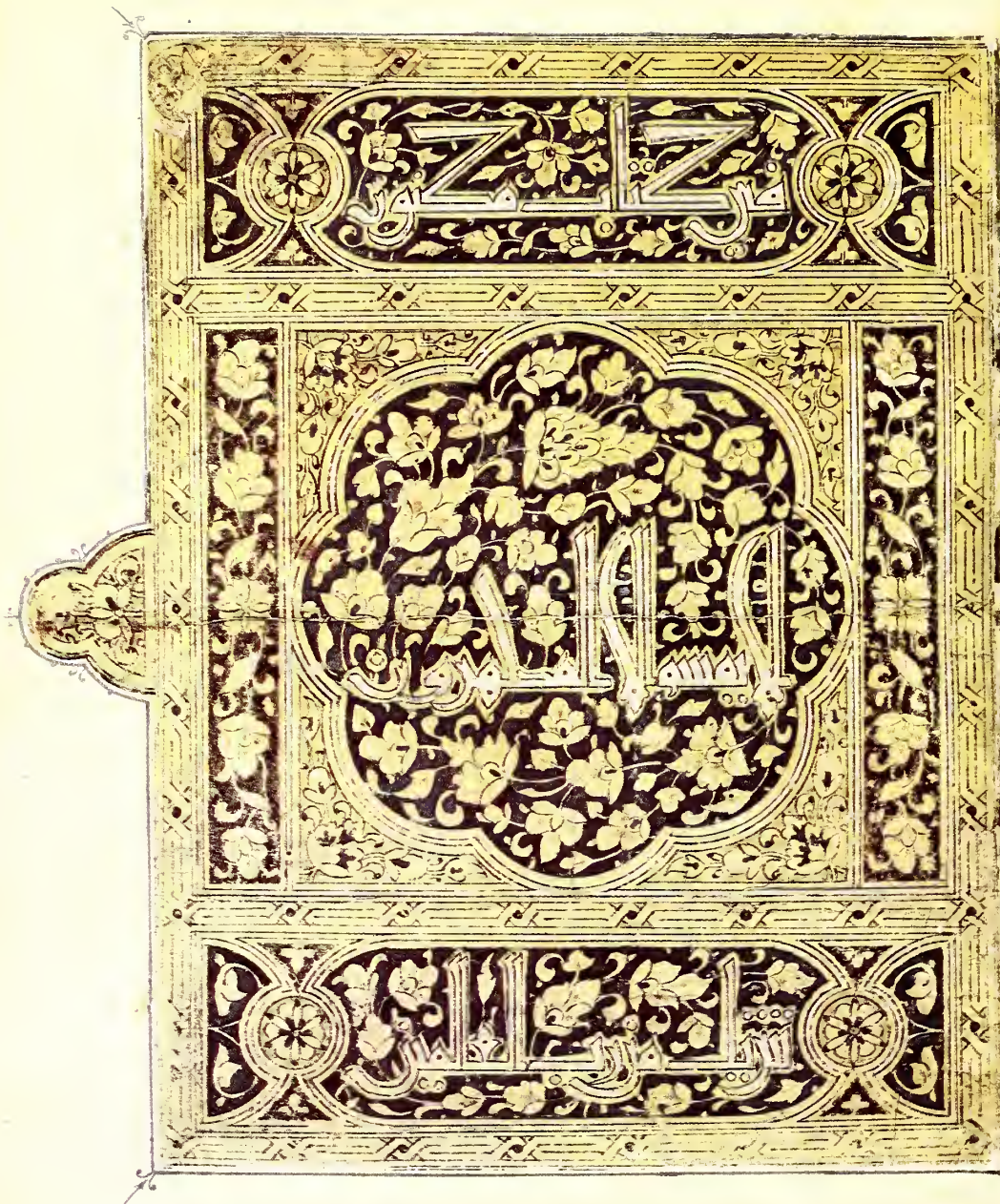
The Freer Gallery owns three folios from this Koran which was written in *naskhi* script. The pages on display have rectangular illuminations with trefoil-shaped marginal ornaments enclosed by thin blue lines. Wide braided bands frame the illuminations and divide them horizontally into three units. The narrower upper and lower units possess oblong cartouches which contain *kufic* inscriptions, written in white against a blue field filled with gold blossoms.

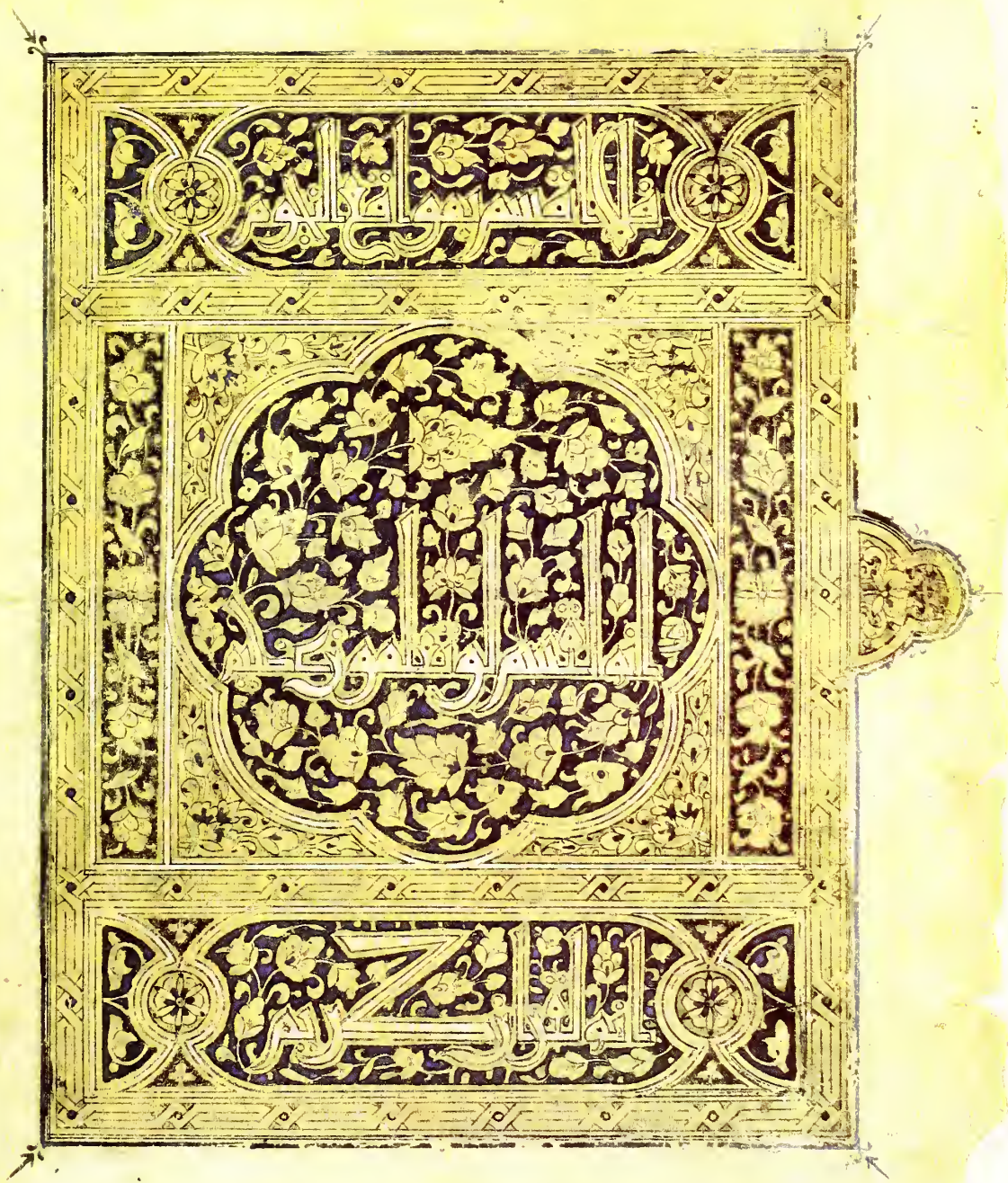
The central units have vertical bands on either side, decorated with gold flowers against a brown field. The square zones in the middle possess eight-petaled medallions which also contain white *kufic* inscriptions, placed against a blue field adorned with gold floral motifs.

The three lines of writing on the right page are from Sura LVI, entitled *The Great Event*, and contain verses 75 to 77. The opposite page continues with the following three verses; on the verso of this folio is the heading of the first chapter, *The Opening*, and the first seven verses.

The section contained in the double frontispiece is one of the most popular passages in the Koran, stating its divine revelation:

*But nay! I swear by the setting or falling
of stars,
And it is indeed a mighty oath if you only
knew,
Certainly it is an honored Koran
In a book that is protected
None shall touch it save the purified
[It is] a revelation from the Lord of the
worlds.*





43
Two Pages from a Koran
Ink, color and gold on paper
Egypt, late 14th century

Height: 32.9 cm. (12 $\frac{11}{16}$ in.)
Width (single folio): 24.8 cm.
(9 $\frac{7}{8}$ in.)
48.9r-32.1v

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The *Kitab fi Marifat al-Hiyal al-Handasiya*, or the *Book of Knowledge of Ingenious Mechanical Devices*, commonly called the *Automata*, was written by Badi al-Zaman ibn al-Razzaz al-Jazari and dedicated to Nasr al-Din (1201–22), the Artukid ruler of Diyarbakir. Al-Jazari, who served the Artukid family for 25 years, had previously been employed by the father and brother of Nasr al-Din.

The *Automata* is devoted to the construction of 50 mechanical devices, grouped under six categories. Each device is discussed in a separate chapter which contains a number of sections; these sections give detailed specifications of the various components used in the automaton.

The first category lists ten different types of clocks which employ either the system hydraulics or heat (water clocks and candle clocks). The second contains ten drinking vessels in the form of goblets, animals or figures; it is followed by ten automated pitchers and basins used for bloodletting or handwashing. The fourth category has ten chapters on the construction of fountains and other hydraulic systems while five similar machines constitute the next category. The last group contains five miscellaneous mechanisms such as an automated palace gate, protractor, alarm clock, locks and bolts. In the Introduction to the work, al-Jazari mentions that he has provided a drawing for each section and marked it with letters for guidance. He makes reference to 173 illustrations plus a list of the 21 letters used to mark his drawings.

Fourteen illustrated Arabic copies of the *Automata* are presently known.¹² The earliest of these contains 179 folios with 60 illustrations (Istanbul, Topkapi Palace Museum, A 3472). Its colophon states that the calligrapher, Muhammad ibn Yusuf ibn Osman al-Haskafi (from Hasankeyf, near Diyarbakir), copied it in 1206 from the autograph of al-Jazari who must have completed the work shortly before this date. The copyist most likely followed the original illustrations which have also been repeated in the later manuscripts.

The Freer Gallery possesses nine paintings which belong to two separate 14th-century *Automata* manuscripts, one of which was

copied by Farruk ibn Abd al-Latif al-Yakuti al-Mawlawi in Ramadan 715/December 1315.¹³ The text, written in black *naskhi* script with red ink used to mark different sections, is 21 lines per folio.

This manuscript was originally in Istanbul and later in the Kevorkian Collection, New York. The paintings are presently dispersed in various public and private collections, and eight of these are owned by the Freer Gallery (nos. 44–51).

The provenance of the 1315 manuscripts has been the subject of debate in the past, attributed by different scholars to Diyarbakir, Damascus or Cairo. It is now generally agreed that the work was executed in Syria which was ruled by the Mamluks at that time.

This work is one of the oldest *Automata* manuscripts in existence. A notation in that colophon states that it is “a copy of a copy of the autograph”; that is, a copy of the 1206 manuscript.

The other *Automata* manuscript has a more definite provenance. The bulk of the work is in Istanbul (Süleymaniye Library, Aya Sofya, no. 3606, 246 folios with 14 illustrations) while several paintings are owned by a number of collections. The colophon states that it was finished in Safar 755/February–March 1354 and copied by Muhammad ibn Ahmad al-Izmiri for the treasury of Amir Nasr al-Din Muhammad, the son of the late Excellency Tulak al-Hasani al-Malik al-Salihi.¹⁴ Tulak, the father of the amir who commissioned the work, served Sultan al-Malik al-Nasr Hasan (1347–51 and 1354–61) and died during the interim rule of Sultan Salih (1351–54).¹⁵ His son, Nasr al-Din Muhammad, was most likely active during the second reign of Sultan Hasan (see nos. 76 and 78 for other works executed during the period of this ruler).

The Freer Gallery possesses only one painting from the 1354 manuscript which is assigned to Cairo (no. 52). The text is written in black *naskhi* script and each folio contains 15 lines.

It is believed that the copyists of both the 1315 and 1354 *Automata* were also the illustrators of the manuscripts. Due to the scientific nature of the work, the paintings are faithful copies of the original illustrations with only minor changes.

Height: 31.5 cm. (12 $\frac{3}{8}$ in.)
Width: 21.9 cm. (8 $\frac{5}{8}$ in.)
30-74v

The first chapter of Category I discusses a water clock which is constructed like the facade of a palace. It has an arched gate below which musicians are placed; a large bird placed above a vase appears on either side. Two narrow panels, each with 12 windows, adorn the upper portion. Above the flat roof there is a semi-circular disc containing the signs of the zodiac with two spheres representing the sun and the moon.¹⁶

At given intervals the windows open, changing colors or revealing a figure; the birds drop balls from their beaks into the vases, ringing cymbals; the zodiac disc revolves and the musicians play.

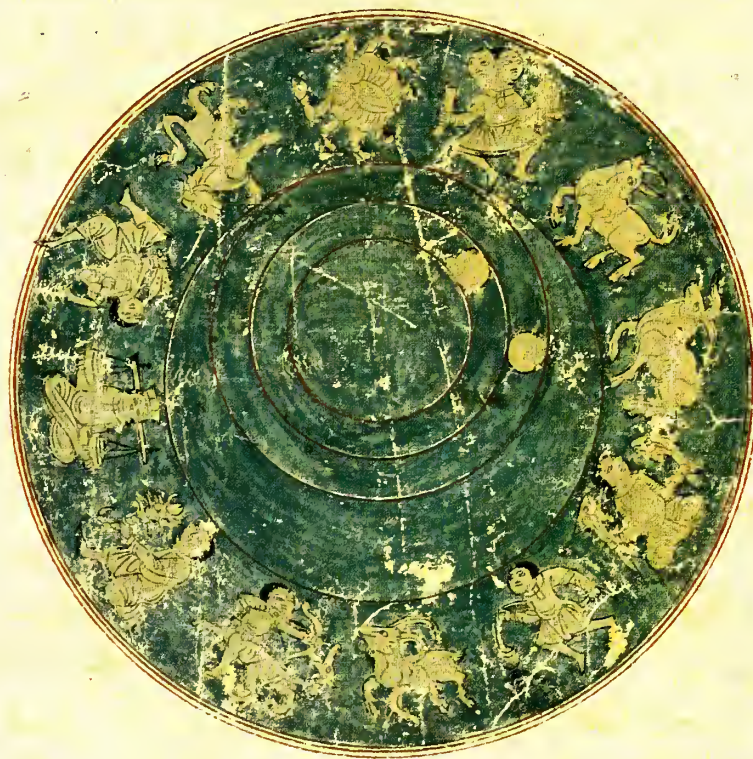
The clock is operated by a complicated hydraulic system hidden behind the facade. The chapter contains ten sections which explain different components of the automaton; the ninth section refers to the construction of the zodiac sign.

The large disc, made from copper, is hammered to the required shape; the 12 signs of the zodiac are placed on the outer rim. Two smaller discs are joined to the large one; the inner disc represents the sphere of the sun while the outer depicts that of the moon.

The illustration shows a green disc, most likely simulating copper, with 12 gold figures on the rim, depicting the zodiac signs. The figures surround a series of concentric circles containing two gold roundels which represent the sun and the moon. The painting appears below the last six lines of Section 9.

Starting from the top, proceeding counterclockwise, the figures represented are: Cancer (crab), Leo (lion), Virgo (figure holding two stalks and a sickle), Libra (seated and crowned figure holding a scale), Scorpio (figure holding a scorpion), Sagittarius (archer), Capricornus (goat), Aquarius (figure drawing water from a well with a bucket), Pisces (seated figure holding up two fish), Aries (ram), Taurus (bull) and Gemini (figure with two heads).

ونصف ثم يثقب في داي ارض النهر ٤٦ ثقباً بـثقب واحد وعمق واحد
متساوية البعد ثم يعتبر اي ثقب منها حاذي راس السرطان من فلك البروج
يعلم عليه علامة ظاهرة ثم يعد منه الى ل ثقباً على توالي البروج ويعلم عليه ايضاً
علامة ويكتب بينهما برج السرطان ولذلك مام البروج وتحدد مسامير من
حديد في احد طرفيه ثقب وليكن هذا المسامير ما ينزل في كل واحد من
الانقباب الى حد ثقب طرفه ضابطاً مكانه هذا ما يحتاج اليه في عمل الافلاك



الفصل

Height: 30.8 cm. (12 $\frac{1}{8}$ in.)
Width: 21.5 cm. (8 $\frac{7}{16}$ in.)

42.10v

The second chapter of the same category begins with a section which describes the appearance and operation of the water clock of the drummers. Similar in construction to the previous automaton, this example resembles a recessed alcove with a frieze of 12 roundels at the top; below it is a panel with 12 crenellations and a figure. On the base of the alcove there are seven musicians. A pair on the left blow trumpets while another pair on the right play cymbals. In the center is a seated figure with double drums, flanked by two standing drummers. In a niche above the musicians a falcon hovers over a large vase.

At every hour the figure on the parapet moves over one crenellation the falcon leans forward to drop a ball from its beak into the vase, which rings a chime, and the musicians play their instruments.

The illustration, faithfully following al-Jazari's specifications, appears at the end of Section 1. The folio on display shows the painting and the beginning of the ensuing five sections which are devoted to the construction of the different parts operating the clock.

The figures are attired in short coats with decorative arm bands and borders around the collars, cuffs and hems. They are either bareheaded or wear turbans and wide brimmed hats.

Although the motifs on the garments (floral and geometric designs, and concentric swirls) are frequently encountered in Mamluk paintings, they can be traced to 13th-century images (see nos. 20–25). Since the painter of the 1315 *Automata* relied on the first copy, he has reproduced not only the exact compositions but also the decorative details which appeared in the 1206 manuscript.

The figure on the parapet stands between the second and the third gold roundels and crenellations. The time is probably just before three o'clock, and the musicians are ready to play their instruments.



الْفَصْلُ الثَّانِي فِي كَيْفِيَّةِ عَمَلِ آلَاتِ الْمَاءِ وَعَمَلِ
كَيْفِهِ يَمْتَلِي وَيَتَفَرَّغُ فِي كُلِّ سَاعَةٍ وَلِيَعْلَمَ أَنَّ وَرَاءَ هَذِهِ الْإِيَّوَانِ
بَيْتًا مُرْتَفِعًا إِلَى أَعْلَى الْإِيَّوَانِ وَنُخْفَاضًا إِلَى تَحْتِ الدَّكَّةِ وَالْذِكَّةِ

مُجَوِّدٌ

Width: 21.9 cm. ($8\frac{5}{8}$ in.)

30.71r

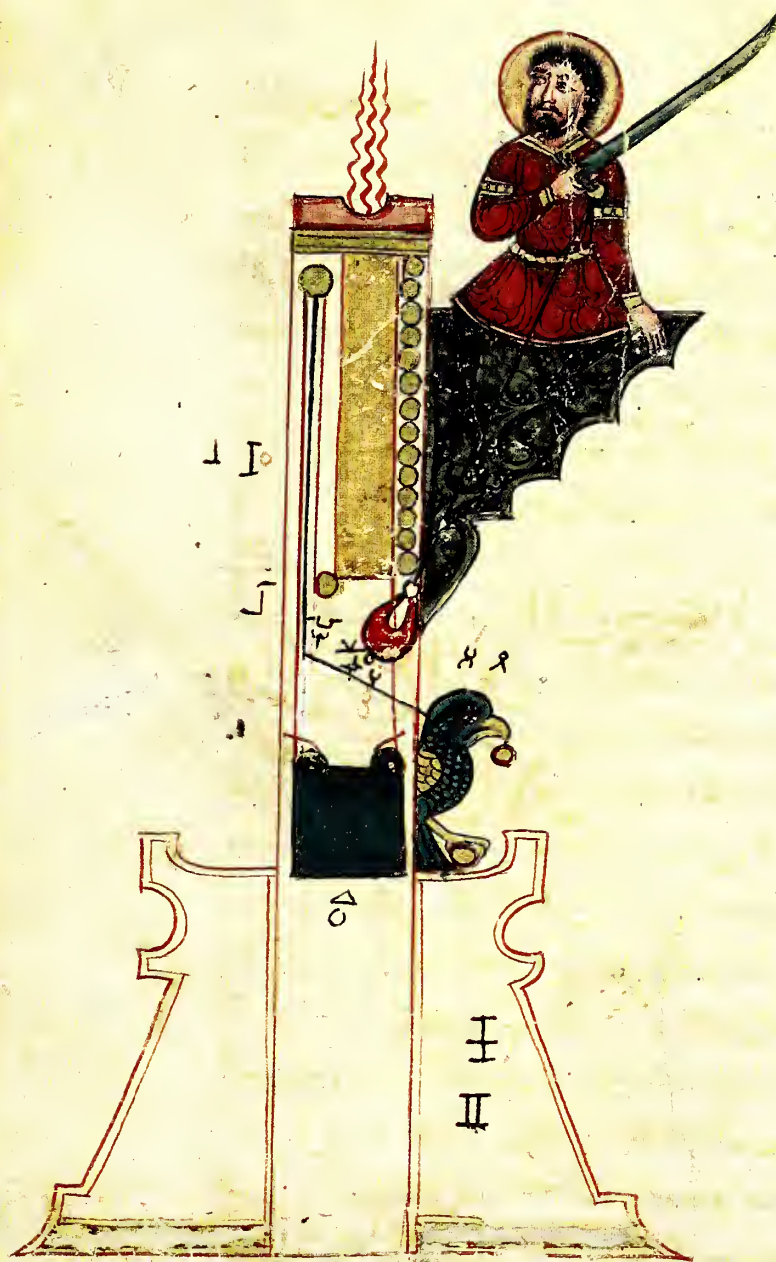
Chapter 7 of Category I describes a clock which is based on the system of heat released through a burning candle. In the first section, its appearance and working principle are explained: the tall brass candlestick has a falcon at the base and a bracket near the top on which a black figure holding a sword is perched. The candle has a wick at its tip and is constructed in two shells which contain the mechanism. It is activated by the burning of the wick and the drop of the balls.

The candle is lit in the evening; each hour the falcon releases a ball from its beak into the base and the figure strikes the wick with his sword, cutting off the burned portion. The passage of time can be told from the number of balls which have fallen into the base.

The remaining two sections are devoted to the construction of the parts and the regulation of the movement of the sword.

The painting graphically represents the candle clock with the base and candle portrayed in cross section. Letters mark the various segments, which are explained in the text as each unit is described. The figure with a halo around his head, referred to as a “black *ghulam*,” a servant or slave, is shown as a bearded man with a dark complexion and short black hair. His placement on the projection and the position of his hands follow the specifications given by the author: one hand rests on the bracket while the other holds the sword across his chest. He is watching the flames which rise from the top of the candle.

The falcon at the bottom of the candle has a gold ball in his beak, ready to drop it into the base which already contains the first ball. The time represented is shortly after the first hour following sunset. A portion of the text appears on the right, written as a slender column with 21 lines.



متصلان باطيان
على كفتين عليهما
ظرفاهما متصلا
بالثقاله ومتى اشعلت
الشعلة اول الليل
فان الشع تذهب
النار وترفع الشعلة
يجذب الثقاله لها
حتى ترتفع الكفة
عن بندقة واحدة
والماضي من الليل
ساعة مستوية فيقع
البندقة الى الكفة
المتصلة بحيط
وهو المتصل بفاضل
يد الغلام وعليه
م فينزل البندقة
في الكفة حتى
يجلس الكفة على
ارض من ويتخرج
وتخرج الى راس

A Mechanical Boat with Drinking

Men and Musicians

From the *Automata* of al-Jazari
Copied by Farruk ibn Abd al-Latif
Syria, dated 1315

Height: 30.2 cm. (11 $\frac{7}{8}$ in.)Width: 21.7 cm. (8 $\frac{5}{16}$ in.)

30.731

The second category in al-Jazari's work contains automata used in drinking parties. A number of these devices are basically elaborate princely toys, such as this boat which is described in the first section of the fourth chapter.

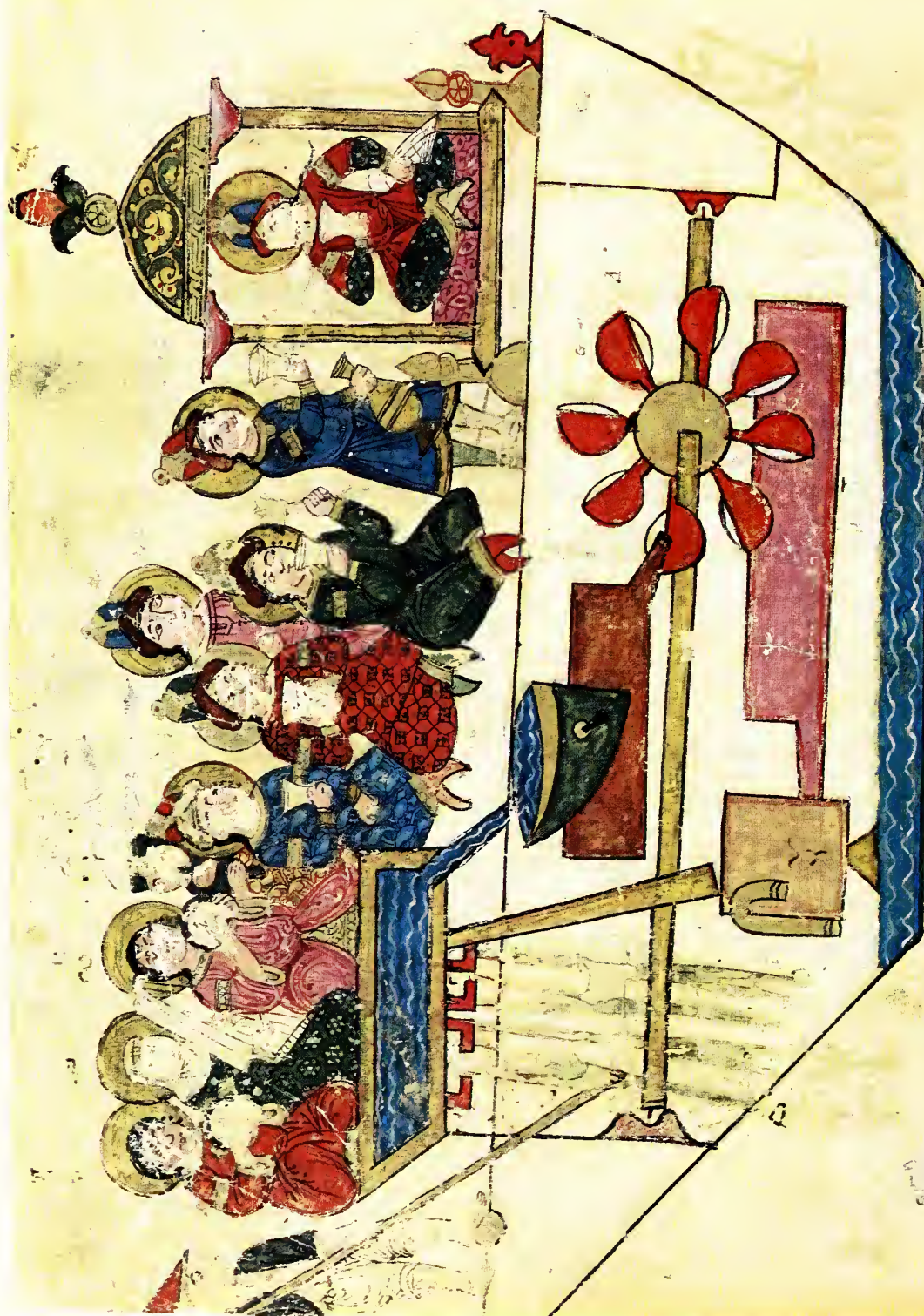
According to the text, the boat is made of wood and has a deck on top; on its stern, there is a domed pavilion with an enthroned king. A servant, holding a bottle and cup, stands in front of the king who is surrounded by his boon companions. Musicians are seated on a platform placed on the opposite end of the boat while sailors holding oars stand on the gunwale.

In the following two sections al-Jazari explains the mechanism which is hidden in the hull of the boat. When the boat is placed on a pool, the hydraulic system is activated and the sailors begin to row. Every half hour the musicians play their instruments. The performance is repeated 15 times.

The painting shows a princely figure seated cross-legged on the far right; he holds a handkerchief in one hand and a cup in the other. Like his companions, he wears a tall hat with an upturned brim. Three of the companions are seated and have cups in their hands, while a fourth stands behind them. The servant with the wine bottle and cup appears in front of the king. On the left is the platform with the musicians.

The painter of the 1315 manuscript has deviated from the text and eliminated certain figures. Al-Jazari writes that the king is accompanied by his chamberlain and weapon bearer, and has companions on both sides of the pavilion. Behind the musicians should be a sailor holding the rudder and another with an oar should be standing on the gunwale next to the king.

This illustration is the only one in the group which is painted sideways. Apparently the artist chose to use the height of the folio to accommodate the extended composition.



Height: 30.1 cm. (11 $\frac{7}{8}$ in.)

Width: 21.9 cm. (8 $\frac{5}{8}$ in.)

30.72r

A container which can dispense a combination of different wines mixed with water is the subject of the first section of the fifth chapter in Category II. The vessel is a large deep bowl made of brass; it rests on a high foot and has a domed cover mounted by a large ball. Near the foot is a valve in the shape of a cow with a disc on its back. Seated on the disc is a man who extends his right hand to touch the disc with his index finger.

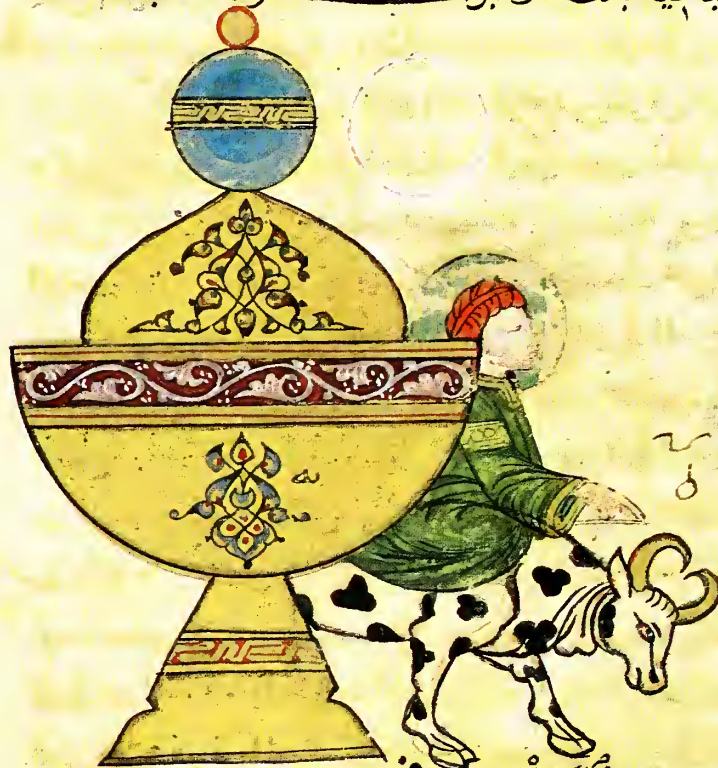
Water and four different kinds of wine (aromatic, rosé, red and white) are poured into the container which is capable of dispensing either one kind of wine or water, or any given wine mixed with water in various proportions, such as one-third wine with two-thirds water, one-fifth wine with four-fifths water, etc.

This marvelous contraption is operated by the figure on the disc which is marked with the possible combinations. When his finger points to one of the marks, a series of valves and ducts connected to the five chambers within the bowl are activated and the desired "cocktail" is prepared.

The illustration shows a large footed bowl covered by a domed lid, adorned with arabesques, floral scrolls and braided bands (for a comparable shape executed in glass see no. 72). The turbaned figure on the cow correctly places the index finger of his right hand on the disc which is almost hidden under his garments.

The last five lines of Section I appear above the painting while three lines of the following two sections are placed on the bottom of the folio.

وان شاء مورد صرف وان شاء اصفر صرف وان شاء احمـ صرف
وان شاء نصب من كل لون من الاربعة ممزوجاً نصفه شراب
ونصفه ماء وان شاء فثلث شراب وثلثان ماء وان شاء
خمس شراب واربعة اخماس ماء وبحسب اختياره وهذه صورة
ظاهر الباطية بالغطاء والبرال والكعب هـ



الفصل الثاني في كيفية عمل الباطية هـ
تخذ من الشبه باطية كبيرة جالسة على كعب طوله شبر
ونصف وتخذ للباطية غطاء كالقبة وعلى القبة كرة مقطوعة

A Mechanical Device with Two Drinking Men

From the *Automata* of al-Jazari
Copied by Farruk ibn Abd al-Latif
Syria, dated 1315

Height: 30.9 cm. (12 $\frac{3}{16}$ in.)

Width: 20.4 cm. (8 $\frac{1}{16}$ in.)

30.771

Another automaton which is purely for princely entertainment constitutes the ninth chapter of Category II. It is constructed like a rectangular platform with four columns at the corners which carry a domed pavilion. On the platform are two elderly *shaykhs*, or holy men, according to al-Jazari. Each figure holds a wine bottle and a cup in his hand. At seven- or eight-minute intervals, one of the figures pours wine into the cup of his companion who drinks it and nods his head with pleasure several times; then the action is reversed and the other figure is offered a drink.

Al-Jazari writes that the platform and figures are made of copper, the columns of bronze and the vessels of silver. The hydraulic system, hidden in the pavilion, contains a water tank and the mechanical parts.

The illustration, which takes up the entire folio, shows two bearded figures sitting cross-legged on the platform. They hold wine bottles and beakers, or cups, in their hands. The pavilion above them is exposed to explain the operating systems and shows ducts and tanks connected to the figures. The large dome on the top and the sides of the pavilion are decorated with arabesques and floral scrolls.

The unit sits on four feet and was probably placed on a table during its performance. Al-Jazari's statement that the figures are intended to represent old *shaykhs* adds an extra touch of lightheartedness to the mechanical toy since religious men generally abstained from drinking alcoholic beverages.

Due to the large scale of the figures, the details are clearly visible. The painter of this manuscript uses fine white strokes to suggest volume, as is particularly noticeable in the faces of the *shaykhs*.



Height: 30.8 cm. (12 $\frac{1}{8}$ in.)

Width: 19.7 cm. (7 $\frac{3}{4}$ in.)

30.76r

The third category of the *Automata* contains pitchers, basins and other containers used for washing hands or bloodletting. The first section of the sixth chapter describes a basin with two scribes which is employed in phlebotomy, measuring the exact amount of blood taken from the patient.

The basin is on a pedestal with four columns rising above it. On top of the columns is a platform where two scribes are seated. One of the scribes is placed inside a circle divided into 120 numbered units and holds a pen resting on the circle. The second figure carries a tablet and a pen which points to the marks on the tablet.

The basin is placed in front of the patient to be bled and the device is set to zero by running a small quantity of liquid through it. When one *dirham* (approximately 3 grams or .16 ounces) of blood is collected in the basin, the pen of the first scribe moves to the first digit on the circle and the tablet of the second scribe rises until his pen points to the first mark. The pens of the scribes move in accordance with the amount of blood accumulated in the basin, until the number 120 is reached by both.

Al-Jazari states that the basin can be removed, washed and replaced. The basin is constructed of brass and the figures are made of copper plates.

The painting shows the basin, pedestal, columns and platform in cross section and reveals the pulleys which move the arms of the scribes as the weight of the blood in the basin activates them. The first scribe has a large pen resting on the edge of the platform while his companion holds up the tablet on which the first mark appears. In the painting, the pen of the second scribe is omitted; the figure is merely pointing to the mark.

The text, placed on the far right, is in a columnar form as seen in number 46. The last two lines present the title of the ensuing portion, Section 2, which explains the mechanism.



ولا يزال كذلك
مادام الدم يقع في
الطست الى مائة
وعشرين درهماً
وان شاء اقل فاقل
ثم يراق الدم من
الجعبة وتغسل في
والطست معا وبقي
مهما لوقت الحاجة
اليه وعند تمام ما
ذكرته تجرد ما
يجبرده وينقش
الكاتبان ويدهن
بالدهن الجميع وذلك
ما اردت ايضا
جلبا واصف ما
صنعتة وهو طست
تلفصاده وصورته ما
في الصفحة الاخرى
النشكر
السابع

51
The Basin of the Servant
From the *Automata* of al-Jazari
Copied by Farruk ibn Abd al-Latif
Syria, dated 1315

Height: 31.1 cm. (12¼ in.)
Width: 21.6 cm. (8½ in.)

30.751

A hand washing device in the form of a servant pouring water from an ewer is described in the tenth chapter of Category III. It consists of a square platform on which a kneeling figure is placed; the figure holds a pitcher in his right hand and a towel and comb in the other. Four columns rising from the corners of the platform carry a domed pavilion with a bird on top. Below the ewer is a basin which contains a duck.

When the bird on the dome whistles, water begins to pour from the tank stored in the pavilion through the spout of the pitcher and the owner washes his hands. The water collected in the basin is drunk by the duck and subsequently released through its tail into the container hidden under the platform. Upon the conclusion of the washing, the towel and comb are extended to the owner, who dries his hands and combs his hair, and returns them to the servant.

Al-Jazari's specifications indicate that the platform is made of copper while the ewer is brass.

The illustration takes up the entire folio and represents the outer appearance of the device as well as the mechanism which moves the hands of the figure. The system is based on the shifting of the weight of water in the tanks above and below the servant. This automaton, like number 49 with the drinking *shaykhs*, is meant to be placed on a table and rests on four feet.

The golden ewer held by the figure is decorated with arabesques and braided bands; it has a single handle, a lid and a curved spout which is shaped like a dragon. The servant wears a long-sleeved dress and coat, and has a small cap on his head. Floral scrolls and arabesque cartouches decorate the pavilion while the dome seems to be covered with hexagonal tiles. Although the text mentions that the figure holds a comb and a towel in his left hand, the former is omitted in the painting.



52
 Man on Balcony from the Elephant
 Water Clock
 From the *Automata* of al-Jazari
 Copied by Muhammad ibn Ahmad
 al-Izmiri for Amir Nasr al-Din
 Muhammad ibn Tulak
 Egypt, dated 1354

Height: 39.7 cm. (15 $\frac{5}{8}$ in.)
 Width: 27.5 cm. (10 $\frac{13}{16}$ in.)
 32.19r

The most elaborate and complicated automaton in the book is the elephant water clock which is described in the fourth chapter of Category I. Its outer appearance shows an elephant carrying a domed pavilion in which a scribe is seated; a driver is perched on the elephant's neck and two entwined dragons extend from the center of the pavilion. There is also a man seated on a balcony which projects from the roof.¹⁷

The 12th section of the chapter is devoted to the construction of the balcony with the seated figure. At given intervals the balcony rotates and the figure moves; a ball is dropped into the mouth of one of the dragons, then fed to the other dragon which drops it into a bucket. Meanwhile, the driver is activated and the scribe's pen moves to indicate the passage of time.

The illustration shows a bearded figure sitting cross-legged on the balcony. He wears a turban and a long garment decorated with arabesques and arm bands. He holds an ornate gold ball in his right hand while his left hand appears to have just released an identical object. The semi-circular band above the figure contains 15 rounded openings, seven of which are silver and seven black; the central opening is painted half silver and half black. The balcony rests on two projecting brackets which are drawn in cross section.

According to al-Jazari, at every half hour, the openings above the figure change color; the figure moves his head, leans to one side, picks up a ball and drops it into the mouth of the dragon.



Few books in the ancient world have been as widely read and circulated as the collection of animal fables called the *Mirror of Kings*, or the *Kalila wa Dimna* after two jackals who are the protagonists of the stories. The work, which is a compilation of two Indian epics, the *Panchatantra* and the *Mabharata*, is attributed to a Brahman named Bidpai, writing about 300 A.D. It uses animal stories to instruct rulers on morals and conduct. There exist several Sanskrit versions, one of which was translated into Pahlavi and Syriac in the 6th century.

Although the Pahlavi version is now lost, it was rendered into Arabic by Abdallah ibn al-Mukaffa around 750 A.D. Al-Mukaffa's work was the source for subsequent translations into Syriac, Greek, Persian, Hebrew and Spanish, which in turn were rendered into Slavonic, Turkish, French, German, Danish, Dutch, Latin, Italian and English.¹⁸ There are also Ethiopic, eastern Turkish, Mongol, Malay and Javanese editions.

The Arabic version has been revised and edited with a number of sections added by the subsequent authors. There are also many imitations of the *Kalila wa Dimna* and many translations of these imitations.

Although the oldest illustrated Arabic manuscript was executed in the first quarter of the 13th century,¹⁹ literary references indicate that the *Kalila wa Dimna* was adorned with paintings at an earlier period. Al-Mukaffa mentions the existence of illustrations in the introduction to his translation and Firdausi states in the old preface to the *Shahname* that the Samanid prince, Nasr ibn Ahmad (914–942), was delighted by the images in the Persian metrical version of Bidpai's work.²⁰

There exist five illustrated Arabic copies of the *Kalila wa Dimna* which were made in the 14th century.²¹ A work closely related to these manuscripts is a Mamluk copy of the *Sulwan al-Muta*, originally written in 1159 by ibn Zafar (1104–70). The author, called al-Sikilli since he was born in Sicily, wrote on various subjects, including the *Sulwan al-Muta* which is a collection of fables based on the *Kalila wa Dimna*.

Ibn Zafar's book was translated into Italian, English and Turkish. The only

known illustrated Arabic copy was executed in the 14th century. The bulk of the manuscript with 110 folios and 26 miniatures was recently brought to light while a single page is presently in Prince Sadruddin Aga Khan's Collection.²²

The Freer Gallery owns two folios from this work (nos. 53 and 54). Each folio possesses one miniature which has no prototype in Islamic painting; the scenes are unique to this manuscript and original creations. The figural representation, the excessive use of gold and the thin blue lines with minute decorative finials framing the scenes are closely related to a Mamluk work which was completed in 1334 and assigned to Egypt.²³

On the basis of the above evidence, the Freer paintings are also attributed to Cairo and dated in the second quarter of the 14th century. The text is written in black *naskhi* script and has 13 lines per page.

The 14th-century copies of both the *Kalila wa Dimna* and the *Sulwan al-Muta* represent the last flowering age of illustrated books on animal fables within the Arab world.

Height: 24.9 cm. (9 $\frac{13}{16}$ in.)
Width: 17.6 cm. (6 $\frac{13}{16}$ in.)

54.1v

The text begins with a statement denouncing corruption and lying, and continues with the story of the horse, which presumably personifies the soul of the liar. After the horse jumps into a river and swims across it, he gets his leather saddle and collar wet. They swell from the intense heat of the sun, suffocating and immobilizing the animal. The horse remains in this miserable condition for a number of days until a wild pig enters the scene, ready to kill him. The horse pleads with the boar who pities his condition and asks what evil he committed to deserve such a punishment. Although the horse professes innocence, the boar answers that if he is lying and ignorant of his crime, he cannot be saved.

The painting shows a chestnut horse with gold saddle and trappings, facing a gray boar running towards him. Behind the horse is a plant bearing two large blossoms which are typical of the floral motifs found in Mamluk art (see nos. 41, 43, 72, 73, 76 and 78). The ground is indicated by green foliage and the sky is rendered as an overhanging canopy.

Aside from the two protagonists of the fable, the horse and the wild pig, there is an additional figure in the scene. A bearded man, wearing a long robe and turban, stands behind the animals and points to the horse. He can be interpreted as the commentator, or the narrator.

The transgression of the frame by the boar, which appears to charge into the scene from the margin, adds a sense of movement and drama to the otherwise static painting.



وَكَانَ يُقَالُ إِذَا دَايَتْ نَفْسُ الْكَذَّابِ قَدْ تَشَتَّتْ بِهَا عَالَمُ الدُّنْيَا وَالْفَسَادُ فِيهَا
إِلَيْهِ فَإِنَّهُ الدُّنْيَا بِهَا فَسَادُ تَرْكِهَا وَالْإِبْدِلُ عَلَى تَرْكِهَا إِنَّمَا مُضَرَّةٌ مُعْرِضَةٌ
عَنِ الْحَقِّقَةِ فِي الْحَوَادِثِ وَتَوَاعُدُ إِلَى الْعَدَمِ لِحُتْمِ قِيَصُورِ الْعَدَمِ وَجِبْهَةٌ دَا

مسار

نفس الكذاب

Height: 24.9 cm. (9 $\frac{13}{16}$ in.)

Width: 17.6 cm. (6 $\frac{13}{16}$ in.)

54.2v

The folio contains a portion of a story within a story and resumes with the tale of the bear and the monkey with failing eyesight. The monkey asks the bear to take him to the monkey's doctor. When they reach the residence of the doctor, who was well known for his malice and slyness, he runs up a tree. The bear explains the ailment of the monkey and asks the doctor to treat his friend. The malicious doctor tells the monkey to climb the tree so that he can see what is wrong with him.

Although the text is rather vague about the precise roles of the animals, the painting helps to clarify certain points. It shows two monkeys in a tree – obviously the doctor and the patient – while the bear sits below on the ground.

The portrayal of the animals is quite naturalistic. The amiable bear lifts up one paw and talks to the malicious brown monkey who is comfortably perched on a branch. On the left the ailing gray monkey has just climbed the tree and approaches the doctor with some degree of apprehension. The foreground reveals an attempt to represent depth by placing clusters of grass, the tree and a body of water in receding planes. Similar to the previous scene, the background is solidly painted in gold.

This miniature, with its vivacious representation of the animals and subtle interaction between the figures, is one of the most charming and aesthetically pleasing of all Mamluk paintings.

وقف

فَصَدَّ فِجْعَلٌ يَأْتِي عَيْنِيهِ وَيَسْأَلُهُ عَنْ خَرِّهِ فَقَصَّ عَلَيْهِ خَبْرَهُ



مَعَ الدُّبِّ وَسَأَلَهُ أَنْ يَنْتَحِلَ لَهُ بَابَ الْمَكِيدَةِ فِي الْخَلَاءِ مِنْ يَدِهِ فَقَالَ
لَهُ الْقَدْرُ الْخَبِيثُ أَنِّي سَأَحْمِلُهُ عَلَى السَّجَرِ فَاحْتِلْ لِنَفْسِكَ فِي انْتِصَارِ

الغوص

Zakariya ibn Muhammad ibn Mahmud Abu Yahya, commonly known as al-Kazwini (1203–83), was born into an Arab family which had settled in Kazwin. He was the kadi of Wasit and Hilla during the reign of the last Abbasid caliph, al-Mustasim (1241–58), and completed his two voluminous works on cosmology and geography while residing in Irak.

The cosmology is an encyclopedic work which bears the title *Ajaib al-Makhlukat wa Gharaiib al-Manjudat*, or the *Wonders of Creation and Oddities of Existence*. The book is divided into two parts which discuss heavenly and terrestrial bodies. The first part contains an extensive introduction to the heavenly bodies (such as the sun, moon, planets and stars) and the inhabitants of heaven (that is, the angels), and concludes with a chapter on chronology. The second portion describes sublunar phenomena and elements (fire, air and water), natural history (minerals, flora and fauna) and, finally, man. The book also contains geographical details such as descriptions of major seas, rivers, islands and mountains.²⁴

Al-Kazwini prepared four editions of the cosmology, one of which was completed in 1276. This version was copied in 1280 by Muhammad ibn Muhammad ibn Ali who also illustrated the work, most likely following the author's original sketches. This manuscript, copied only three years before the death of al-Kazwini, was executed while he was residing in Wasit (Munich, Bayerische Staatsbibliothek, Cod. Arab. 464).²⁵

The *Ajaib al-Makhlukat* was subsequently translated into Persian and Turkish, and a great number of these editions were adorned with miniatures.²⁶

Illustrated Arabic copies of the work are rather scarce. Aside from a group of three manuscripts, which were made towards the end of the 14th century, only a few later copies still exist.²⁷

The oldest of the 14th-century manuscripts is an undated and incomplete version which was acquired in Algiers by Friedrich Sarre. The work was first exhibited in 1910 in Berlin and Munich, and in 1910 and 1931 in London and Frankfurt.²⁸ In 1954 a large portion of the manuscript containing 144 folios was purchased by

the New York Public Library, Spencer Collection (MS. 45) while the balance of 83 folios entered the Freer Gallery (nos. 54.33–54.114 and 57.13). The Spencer Collection owns the original binding, the beginning of the manuscript and the bulk of the text. This portion has relatively few paintings, most of which depict either astronomical diagrams or illustrate the sections devoted to fish, trees, birds and rodents. In contrast, each folio in the Freer Gallery possesses one or more paintings.

The manuscript has 23 lines per page written in black *naskhi* script, enclosed by black and gold marginal lines. The captions of different sections appear in red or blue with the occasional subtitles given in yellow. The paintings, rendered in color and gold, are freely placed on the folios without any frames. The manuscript was paginated twice: the earlier set is in ink with Arabic characters while the later set is in pencil and uses the digits known as “Arabic numerals” in the West.

The manuscript does not possess a colophon or any other indication of its date and provenance. Similar to a number of other Islamic scientific manuscripts, the illustrations are archaic and based on earlier models; thus, it is very difficult to localize and date the work from its stylistic evidences. Various scholars have attributed it to Irak or Iran between 1350 and 1400.²⁹ It is generally agreed that the work was executed in Irak under the Jalairid rule. However, a contemporary Persian copy of the *Ajaib al-Makhlukat*, dedicated to Sultan Ahmad Jalairid, reveals a different style of painting.³⁰ The problem will remain unsolved until comparable works with precise dating and provenance are discovered and published.

The two other late 14th-century copies of al-Kazwini's cosmology seem to be based on the above manuscript and were probably executed at a slightly later period. Unfortunately, they bear neither a date nor a provenance. One of the manuscripts is in the Academy of Sciences, Leningrad,³¹ while the other is owned by the Chester Beatty Library, Dublin.³²

The Freer manuscript contains the sections on the heavenly bodies, including the sun and moon, planets, constellations, signs of the zodiac and

angels; the creatures of the earth; different species of fish and other beings which inhabit the seas; various types of trees and plants; real and fictitious animals and birds. The illustrations on the 16 folios placed on display are representative of the broad scope of al-Kazwini's work. They reveal both its scientific and mythological character, the latter of which can be related to the fantastic tales in the *Arabian Nights* and the *Voices of Sinbad, the Sailor* (nos. 55–70).

Height: 32.7 cm. (12 7/8 in.)
Width: 22.4 cm. (8 3/4 in.)
54.34v

This portion of the text, entitled "The Fifth View of the Orbit of the Sun," describes two spherical planes, the center of which is the center of the universe. The lower plane is tangential to the apogee of the orbit of Venus. Revolving from east to west, this orbit is concluded in 360 1/4 days. Al-Kazwini states that Earth has a separate orbit whose center, the sun, is outside the above-mentioned center. The sun does not revolve, if it did, there would be six months of winter and six months of summer which would lead to the extinction of all animal and plant life on Earth. The author indicates that the thickness of the "orbit of the sun" is 355,470 miles and mentions that it is represented by a diagram in his work.

Venus, personified by a female lutist, is placed on the upper portion of the folio. The crowned figure sits cross-legged on a cushion and leans against a pillow while playing her instrument.

The planet Venus, traditionally shown as a lutist, appears on a great number of Islamic objects which depict astronomical themes. The model for the figure predates Islam and can be found in the classical period.

The silver disc on the lower portion of the page is the diagram of the "orbit of the sun" mentioned by al-Kazwini.

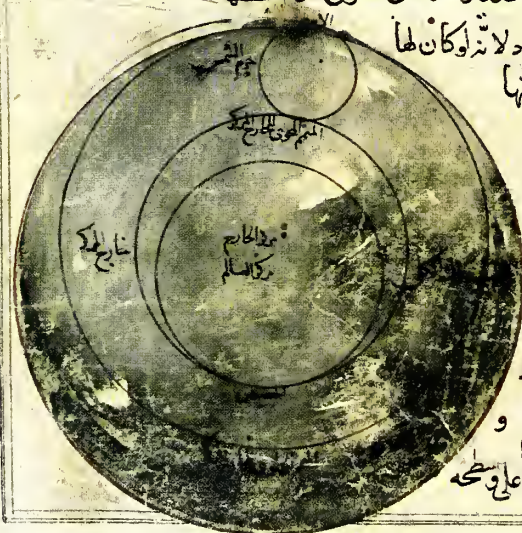
وسرور حتى لو كان بالناظر إليها حرار بات العشق يخفف عنه
خواصها حتى لو نكح امرأة والأفرق حسن الحال وقع بينهما من لافعة والحبة ما يتعجب الناس منها وزعموا ان ذلك
بحسب وهذه صورتها

النظر الخامس

هو يحد سطحان متوازيان مركزهما
مركز العالم السطح الاعلى منهما ماس
لمقعر فلك الميزان والادنى منهما ماس للحجاب
فلك الزهرة ودورته التي تختص به من المعز
الى المشرق تتم في ثلثمائة وستين يوماً و
ربيع يوم ويفصل بينهما فلك شامل للدار
مركزه خارج المركز كما مر ذكره في
الافلاك الثلاثة من غير فوق الا ان الشمس



ها هنا عمل فلك الدور في فلك الميزان الدور وهذه صورة فلكها
وذلك من لطف الله تعالى وعنايته بالعباد لا يتركها
فلك الدور كما لا يتركها فلك الميزان وجعلها
تدور في الصيف ستة اشهر وكذلك الشتاء
فادى الى هلاك الحيوانات والنباتات
لان الشمس اذ بقيت مسامة لرؤس قوم
ستة اشهر حتى مزاج حيوتهم واخرق نباتهم
وان بعدت عن قوم ستة اشهر استولت البرد
على ترابهم فاطفقت حرارتهم وقد مزاجهم و
نحن فلك الشمس وهو مساقط ما بين سطحه الاعلى وسطحه



الارض ثمانية

Height: 32.7 cm. (12 $\frac{7}{8}$ in.)Width: 22.4 cm. (8 $\frac{13}{16}$ in.)

54-36v

The author writes that the orbit of Mars is bound by two parallel lines whose center is the center of the universe; the upper line is tangential to the orbit of Jupiter and the lower to the orbit of the sun. The planet Mars revolves from west to east and takes one year, ten months and 22 days to complete its orbit. The figure of the orbit is like those of the moon, Venus, Jupiter and Saturn; and its thickness, according to Ptolemy, is 20,376,998 miles.

Al-Kazwini mentions that the astronomers associate Mars with oppression, subjugation and tyranny. They call it "the lesser misfortune" since it is below Saturn in misfortune. The mass of Mars is approximately one and a half times that of Earth; its diameter is 900,835 miles and the planet travels about 40 minutes of an arc each day.

Mars is symbolized by a bearded warrior who sits cross-legged on a cushion with a pillow behind his back, similar to the representation of Venus seen in the previous image. Mars holds a silver sword in one hand while clutching the hair of a severed head in the other.

In Hellenistic and Roman art this planet is personified as a warrior who wears a helmet and full armor, and generally holds a sword and shield. Although Mars wears a helmet in this painting, he is attired in the costume of the period with a short-sleeved coat worn over a long-sleeved garment. The cloud collars decorating the neck and shoulders of the outfit as well as the floral motifs embroidered on the coat and cushion are frequently found in post-Mongol paintings.

75

وهو يجرد سطحان متوازيان مركزهما مركز العالم الاعلى منهما يماثل فلك المشتري والادنى منهما عماثل فلك
الشمس وتيم دورته المختص به من المغرب الى المشرق في سنة واحدة وعشر اشهر واثنين وعشرين يوماً بالتقريب
وصور فلكه كصورة فلك القمر والفرق من غير فرق فلا حاجة الى اعادته وعلى ادي بطليموس خن جرم فلك المريخ
وهو المسافة التي بين سطحه الاعلى والاسفل عشرون الف الف وثلاثمائة الف وستة وسبعون الفا وتسعمائة
وثمانية وتسعون ميلاً ولما الميرخ فسماء المجنون النحر الاصغر لانه في النخسة دون زحل واصفاً الى
الجحش والطين والقمر والغلة وجرم الميرخ تسعمائة الف وثلاثمائة وخمسة وثلاثون ميلاً يبقى كل ربع
اذا كان مستقيماً اربعين يوماً ويقطع كل يوم اربعين دقيقة بالتقريب والبراهين على ذلك في علم الحساب والله اعلم
وهذه صورة الميرخ

النظر السكابة

في فلك المشتري

وهو يجرد سطحان متوازيان مركزهما يماثل
فلك زحل والادنى يماثل فلك المشتري
مركزهما مركز العالم تيم دورته المختص
به من المغرب الى المشرق في سنة
واحدة وعشر اشهر وخمسة وعشرين يوماً
وتحجره وهو المسافة التي بين سطحه
الاعلى وسطحه الادنى عشرون الف
الف وثلاثمائة واثنان وثلاثون الفا
واربعاً واثمان وثلاثون ميلاً ولما الميرخ فسماء المجنون السعد الاكبر لانه في
السعادة فوق القمر واصفاً الى الجحش والطين والقمر والغلة وجرم المشتري
مثل جرم الارض اربع مرات وربع وثلاثون مرة وثلاث وربع وقطر جرم المشتري كقطر جرم الارض اربع
مرات وربع وسدس تقطع كل يوم خمس دقائق وصورة فلكه كصورة فلك القمر والفرق من غير
سواء من غير فرق فلا حاجة الى اعادتها بل يسلم من ذلك والله اعلم وهذه صورة المشتري



النظر المشتري

Height: 32.7 cm. (12 $\frac{7}{8}$ in.)

Width: 22.4 cm. (8 $\frac{13}{16}$ in.)

54-39r

The text states that the Great Bear, a constellation also called the Big Dipper or Ursa Major, consists of 29 stars in the figure itself with eight additional stars around it. The stars constituting various parts of the body are given different names by the Arabs. For example, the three stars on the tail are called "the mourning maidens," the one at the end is named "the leader," followed by "the beast." Above the latter is a smaller star, "the indistinct," by which people test the power of their vision. If they look at this star and say, "I take refuge with God of the indistinct, from the scorpion and the snake," they will be safe that night from the attacks of insects and animals.

In the following section al-Kazwini discusses the names of the 31 stars which make up the constellation "the dragon," or Draco. The single star on the tongue is called "the dancer." The group of four on the head are named "the mother animals," with the central one being "the young of the camel."

On the upper half of the folio is a large brown bear while below it is a blue dragon whose body twists and forms a heart-shaped knot in the center. The stars constituting the constellations are represented as gold dots outlined in red.

Ursa Major and Draco are among the 21 constellations of the northern hemisphere.

تسمى سربيات الشمس وتسمى الحوض أيضاً والكواكب التي على الحاجب والعينين والأذن والحظم تسمى الأطباء، تقول العرب
إن الأطباء لما قفزت من الحلبة ووردت الحوض وأما الثمانية التي حول الحوض فاشنان منها ما بين الحلبة والقائد
واحدما أنور من الآخر تسميه العرب بكدا لاسد وأتت الباقية تحت العنق ثم الأمانة التي على اليد اليسرى ثلثة
منها أنور وهي طبيباً والباقى خفية أولاد الأطباء، وهذه صورته



صورة التنين
كواكبها أحد وثلاثون كوكباً من الصور وليس حولها شيء من الكواكب المصورة والعرب
تسمى لكوكب الذي على اللسان والأربعة التي على الرأس العوايد وفي وسط العوايد كوكب صغير تسميه العرب
الرقيم وهو ولد الناقة وتسمى النيران الذين على مؤخر الذنبين والابنيين الحقيقين الذين قبل الذنبين أطفال
الذنب وقد وقعت بين الذنبين وبين النسر الواقع منعطفات في الرقيم، وهذه صورته



Height: 32.7 cm. (12 $\frac{7}{8}$ in.)Width: 22.4 cm. (8 $\frac{13}{16}$ in.)

54-451

Al-Kazwini states that the constellation known as "the archer" (that is, Sagittarius), also called "the bow," is made up of 31 stars. The stars on the arrowhead, handle and southern tip of the bow and on the right hoof are called "the ostrich going to drink" to describe their configuration. The stars on the left flank, above the arrow, on the shoulder and under the armpit are called "the escaping ostrich" as they suggest an ostrich which has drunk the water and is leaving the river.

A configuration of 28 stars appears in "the goat," or Capricornus. The first of the two stars on its second horn is named "Sad, the butcher," who is supposed to have killed the lamb represented by the smaller second star.

Sagittarius is depicted as a composite creature, the upper half of which is the archer. The figure, shooting with a bow and arrow, wears a crown with two long ribbons trailing behind his head. The lower portion of the body resembles that of a four-legged animal whose tail forms a knot and ends with a dragon's head, similar to Draco seen previously. The centaur is the traditional symbol of Sagittarius which is one of the signs of the zodiac.

Capricornus, also a composite creature, has the body of a fish with the torso, forelegs and head of a ram. The silvery body is scaled whereas the blue torso is covered with fur. Like Sagittarius, it is a part of the 12 zodiacal constellations (see no. 44 for the representations of the zodiac).



ثمانية وعشرون كوكبا من الصورة وليس حوالى الصورة نعى من الكواكب
المصدودة والعرب شتى
الاشين الذين على القرن
الثاني سعد الناج لان
احدهما تير والاخر حفي
فسمى الكبير الذابح والصغير
الملاصق له طلوا الله شاة
يدخها وتسمى الاشين
كوكبة الدلو



التسعين الذين على الذاب المحنيز وهذه صورها
كواكبها اثنان واربعون كوكبا من الصورة وثلاثة خارج الصورة والعرب يسمى الذين على
مكبه الايمن سعد الملك والذين على منكبه الايسر مع الذي على ذب الهدي سعد السعوط

Height: 32.7 cm. (12 $\frac{7}{8}$ in.)

Width: 22.4 cm. (8 $\frac{13}{16}$ in.)

54.461

Al-Kazwini writes that there are 15 figures or constellations in the southern hemisphere, one of which is "the whale," or Cetus. This constellation has 22 stars and resembles an animal facing east. The following group of 38 stars make up Orion which is also called Gemini. This constellation resembles a figure of a man who holds a stick in his hand while a sword is girt at his waist. Similar to the previous examples, the stars of the constellation are identified by their names. For instance, the group of nine on the sleeve is called "the crown of Orion", or his "hair curls."

Cetus, which appears on the upper half of the folio, has the silvery and scaled body of a fish with the torso, forelegs and head of a quadruped. The torso is covered with fur and a golden wing, terminating in a dragon's head, emerges from the shoulder. The composite character of Cetus resembles that of Capricornus (no. 58).

Orion is represented as a long-haired youth who holds a club in his hand while a black sword hangs across his body. The figure wears a short-sleeved and belted coat over a longer garment, the right sleeve of which extends over the arm to accommodate the nine stars which constitute this part of the body. In the West, Orion is often personified as a hunter with a belt and sword whereas Cetus is represented as a whale.

الصَّوْرُ الْجَنُوبِيَّةُ

وهي الكواكب التي في النصف الجنوبي من الكرة وهي خمس عشرة صورة نذكر مواقع كواكبها من الصور ومواقعها من ذلك البروج واسماءها على مذهب العرب والمخترين على رسمها فيما تقدم من الصور والله الموفق للصواب

وهي صورة حيوان بحري مقدرة في ناحية الشرق على جنوب وكبة الجبل وموضع في ناحية المغرب خلف الثلثة الحار جبر صون ساكب الماء وكواكب اثنا عشر كوكبا والعرب يسمي الكواكب التي في الرأس الكف الحذاء لأن امتدادها امتداد الكف الخشب وتسمى الخشب التي على يده النعامات والكوكب الذي على أصل الذنب يسمى النظام والتي على الشبة الجنوبية



يتمى نصف دغ الثاني والنصف دغ الاول مرفى الدلو

كواكب ثمانية وثلثون كوكبا من الصور وهو صورة رجل قائم في ناحية الجنوب على طريقة التمرسين حصا وعلى وسطه سيف والعرب تسمى الكواكب الثلثة التي على الوجه المقفة والانا في ايضا تشبهها بالنير الاظم الذي على منكبه اليمين منكبه الجوزاء ويد الجوزاء ايضا والكوكب النير الذي على منكبه اليسرى الناجد والمزدم ايضا والثلثة المصطفة التي على وسطه منطقة الجوزاء ونطاق الجوزاء والنظام



Height: 32.7 cm. (12 $\frac{7}{8}$ in.)Width: 22.4 cm. (8 $\frac{13}{16}$ in.)

54.48r

The text states that the constellation "the raven," or Corvus, is in the southern hemisphere and consists of seven stars. "The Centaur," or Centaurus, is also in the same hemisphere and possesses 37 stars which represent an animal whose forepart is a man and hindpart is a horse. It faces east and has in one hand two palm branches while the other holds the paw of a lion. Al-Kazwini writes that the last two stars of Centaurus are called "the two sworn upon." According to tradition, one of these stars passes very near the path of Corvus and some people insist that it belongs to Corvus while others swear that it belongs to Centaurus, the former having perjured themselves.

The little white bird with dark red wings and tail on the upper left of the folio represents Corvus whereas the magnificent centaur takes up the lower half of the page. This figure wears a white turban and carries a golden branch in his right hand. The left hand is merely pointing beyond the folio although the text indicates that it should be holding a lion's paw. A golden wing attached to the shoulder terminates in a dragon's head while the large tail has the scaled body of a serpent and forms a heart-shaped knot in the center, ending with a ferocious-looking dragon's head (see also Sagittarius in no. 58).



هذه سبعة كواكب خلف الباطية على جنوب السماك
الاعزل والعرب تسمي هذه الكواكب بحجر الاسد
وسميتها ايضا عرش السماك الاعزل وتسميها
ايضا الاجمال وهن صورتها

هذه سبعة وثلاثون كوكبا صورتها صورة حيوان مقدّم مقدّم
من راسه الى آخر ظهره ومؤخر مؤخر فوس من منشاء ظهره الى ذنبه ووجهه الى الشرق ومؤخره الى الغرب
والعرب وبيد شمراخان وقد قبض بيده الى يد التبع وعلى ابطه الدابة نير يسمي بطن وعلى ما فريد اليمى كوكب حضار
وعلى يمين الاخرى الوزن وهما اللذان يسميان الحلفين والخشين كما ذكرنا قبل فان المقدّم منهما يمر على مجرى
التسهيل فاذا اطلع يشبهه من يراه بهيل ويقول غيره انه غير سهيل فمجانان فيحت من يدعي انه سهيل



هذه خمسة عشر كوكبا من الصنوع خلف كوكب قطور من بعضها محاطة بكوكب قطور

Height: 32.7 cm. (12 $\frac{7}{8}$ in.)

Width: 22.4 cm. (8 $\frac{3}{16}$ in.)

54.50v

This portion of the text begins with praise of the angels who bear the celestial throne, and are the noblest and closest to God among all the angels. According to tradition, some of the throne bearers are in the form of human beings while others resemble oxen, eagles or lions. The author includes a verse about these angels which had impressed the Prophet Muhammad:

*A man and an ox under his right foot
An eagle and a lion with a mane for the
left.*

The text also quotes Abbas, the Prophet's cousin, who is recorded as saying that God created four bearers of the throne, but on the Day of Resurrection they will be reinforced by another four and on that day eight of them will bear the throne of God. Among them those in the form of human beings who will intercede for the sustenance of man; the oxen will plead for the animals, the eagles will plead for the birds and the lions will plead for the predatory creatures. The angels will carry the throne on their shoulders and should they become weak, the greatness of God will bear it.

The painter has depicted the angels in two pairs. Those on the upper register, the man and the ox, will bear the right side of the celestial throne while the lion and the eagle below will carry the left. The winged man with long flowing locks wears a turban and the characteristic garments of the period. He faces the ox whose tail is knotted in the same fashion as previously discussed animals. The lion with a mane confronts the stationary eagle.

The symbols of the four angels who bear the celestial throne can be found in Judaic and Christian traditions: in the Old Testament they appear in the vision of Ezekiel and in the New Testament they represent the four Evangelists.



بشأن

Height: 32.7 cm. (12 $\frac{3}{8}$ in.)
Width: 22.4 cm. (8 $\frac{13}{16}$ in.)

54.51v

Al-Kazwini writes that the four arch-angels are called Israfil, Jibril, Mikail and Izrail. Israfil carries out the orders of God and inspires souls into bodies. In his mouth he holds a trumpet, the head of which is as large as the Heavens and Earth. Israfil watches the celestial throne for the order to blow his trumpet, and when he does, everyone in the Heavens and on Earth will suffer a deadly shock, except those whom God wants to be saved. The archangel is described as having four wings, each of which is used to block the East and West, to clothe his body and to veil his head from the greatness of God. Israfil stands below the celestial throne and has a plate between his eyes. God communicates His orders with a pen which writes on the plate that is lowered to Israfil. Israfil then carries out the command through his assistants who inspire their souls into matter, flora or fauna. Life on Earth can only be sustained through these forces, but should they cease, then decay sets in.

Israfil, also called the Lord of the Horn, is shown holding his golden trumpet in his mouth, ready to blow it upon orders from God. He wears the turban and garments of the period and has elaborate sashes wrapped around his torso. His enormous wing terminates in a dragon's head, similar to that seen on the constellations Cetus and Centaurus (nos. 59 and 60). The figure is represented in profile with one leg raised. He appears to be stepping out of the folio with parts of his body transgressing the frame, a feature commonly seen in the paintings of this manuscript. The powerful and dramatic movement created by the repetitions of diagonals and the strong profile of Israfil is in keeping with the character of the archangel who is to determine the destiny of man, announcing the Day of Judgment.



Height: 32.7 cm. (12 7/8 in.)
Width: 22.4 cm. (8 13/16 in.)
54.52v

The archangel Mikail, or Michael, is in charge of the provenance of bodies as well as the presence of wisdom and knowledge in souls. He stands on the overflowing sea in the Seventh Heaven in which the angels are as numerous as God wishes. No one knows Michael's qualities or the number of his wings except God. If he opens his mouth, the Heavens will be swallowed "like a grain of mustard in the sea"; and if he comes near the dwellers of the Heavens and Earth, they will burn from his light. His assistants, who are in charge of the entire world, have the power of resurrection and generation.

Michael, attired in the same garments as Israfil, is represented in quite a different manner. The figure turns into the folio and the curvature of his body creates a rhythmic, self-contained movement. His inclined head, flowing locks, bent arms, hips and legs, accentuated by the ripples of his sashes and the curves of his wings, create a softly flowing movement that contrasts with the dramatic rendering of the previous archangel.



وَمِنْهُمْ مِيكَائِيلُ

Height: 32.7 cm. (12 $\frac{7}{8}$ in.)

Width: 22.4 cm. (8 $\frac{13}{16}$ in.)

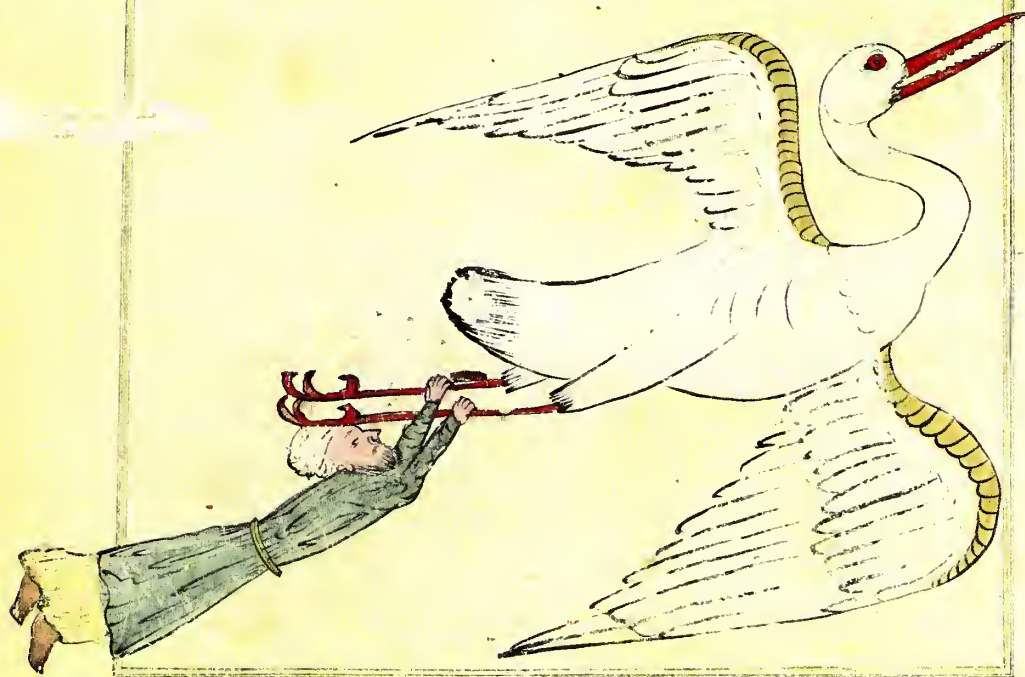
54.631

One delightful story narrated by al-Kazwini is the tale of a traveler who was rescued from an island by a miraculous bird called the Rukh. According to the author, a man from Isfahan, overwhelmed with debts and family expenses, took to the sea. During the voyage his ship was carried into a whirlpool by powerful waves. The captain told the passengers that they could be saved if a man sacrificed himself and consented to stay on a nearby island. The man from Isfahan volunteered on the condition that the passengers paid his debts and took care of his children; the passengers agreed and he was deposited on the island.

On the island he came upon a huge tree, on top of which was the nest of a great white bird. This bird flew in every night and left at dawn. One morning the man grabbed its legs and the bird carried him high over land and sea, finally dropping him in the center of a marketplace. When the people and the king of the town heard his story, the man was given a great deal of money and asked to stay. In time he found his ship but when his friends asked him how he was saved, the man from Isfahan told them that he had given himself to God and God had performed the miracle. Al-Kazwini ends the tale by commenting that it is a strange story but it is not beyond the providence of God.

The illustration shows a man holding onto the legs of a large white bird which flies across the folio with outstretched wings. The bearded man wears a turban and has a coat over his garments. The diagonal placement of the figures with the legs of the man hanging out of the frame provides a sense of tremendous height and movement, in accordance with the description of the miraculous flight.

دكتا البحر فطمت بنا الامواج حتى حصل المركب في الدردور المشهور في بحر فارس فقال المعلم هذا الدردور لا يخاضه
مركب الا ماشاء الله فقال القوم للمعلم هل تعرفون الخلاص طريقاً قال انا كلنا هلك في فان سمح احدكم بنفسه
لاصحابه فانا انزل جسد على الله يوفق الاخلاص فقلت انا اسمع نفسي لا صاحب في ماذا تا مروني قال ان تقف على طرف
هذه الجزيرة وكان يقرب الدردور جزيرة ثلثة ايام وليا اليها لا تقتر عن ضرب الدهل البتة فقلت انا افضل
ذلك فاعطوني من الماء والزاد ما يكفيني اياماً فوقف على الجزيرة وشرعت في دق الدهل فرايت المياه تتحرك والمركب
جري وانا انظر اليه حتى غاب عن بصري فلما فرغت جعلت اتردد في الجزيرة فاذا انا بشبح عظيم لم اذ اعظم منها وعليها
شبه سطح عريض فلما كان اخر النهار اخست بهد وشد يد فاذا طائر عظيم ابيض اللون لرا حيوانا اعظم منه
جاء ووقع على ذلك السطح فاختفيت منه خوفاً من ان يصطادني الى ان بداض الصبح ففرض جناحه وطار فلما كانت
الليلة الثانية جاء الطير ووقع على عشه وكنت اياماً مريضاً ففرضت نفسي عليه حتى تقب بين يديه فلم يقرض لي بشئ
وطار مصحاً فلما كانت الليلة الثالثة نعدت عند من غير دهشة الى ان فرض جناحه فتمسك برجله فحملني وطار في



Height: 32.7 cm. (12 $\frac{3}{8}$ in.)
Width: 22.4 cm. (8 $\frac{13}{16}$ in.)

5+71v

The section on the inhabitants of the seas describes a creature called "the sea horse" which resembles a land horse but has a longer mane and tail, and a prettier coloring. Its hoof is cloven like the cow's and its body is a little larger than that of the donkey. This is the horse of the Nile in Egypt which can overpower and eat crocodiles.

A story is related about one of the *shaykhs* of Khorasan who came to the shore with his mare. A black horse with white markings "like coins" jumped out of the water and impregnated the mare which gave birth to a beautiful foal. On their next visit to the same shore, the sea horse reappeared and took the foal into the sea with him. The sea horse and his foal were never seen again.

The sea horse foretells the flooding of the Nile by its tracts, and parts of its body possess medical properties. Its tooth, when pressed on a person, cures stomachaches as well as epilepsy; its bones can cure sores if burned and mixed with its fat and applied to the infected area. Other parts of the animal's body prevent swelling, pain and insect bites.

The next animal described by al-Kazwini is the whale which is a huge fish capable of breaking a ship.

The black and white sea horse with two wings appears on the upper portion of the folio while the large silvery fish is below. The charming representation of the incredible sea horse is very close to the description provided by the author.

ما سمع من سمير الماء بمصر يوزن بطول النيل بأرطوطينه فأنتم حيث وجدوا أرحا فزه
عرفوا أن ماء النيل ينتمي إلى ذلك الموضع



أما خراف إخوانه فذكروا أن سته تشد على من به وجع البطن يزول وجعه. وأن قومًا من السودان يكون
شاطئ النيل من الحبشة يشربون الماء الكدر ويأكلون التمسك التي فيعرضهم المغص فيشربون من
هذا الفرس على الليل يزول عنه عظمه يرق ويخلط بشحمه ويضد به السرطان يرد عنه حصيته يجفف ويخفق
يشرب لهش الهوام، جلده ان دق في وسط قرية لم يقع فيها شيء من الآفات ويحرق ويجعل الورم يمكن منه في الحال
قايوس تمكة عظيمة



Height: 32.7 cm. (12 $\frac{7}{8}$ in.)
Width: 22.4 cm. (8 $\frac{13}{16}$ in.)

54-73r

Three of the plants discussed by al-Kazwini are the Egyptian Thorn, the Ben Tree and the Turpentine Tree. In the description of their properties the author frequently quotes Ibn Sina, or Avicenna.

The Egyptian Thorn is a desert tree covered with thorns. Its roots have an aromatic vapor and can be used as perfume. The Ben Tree is a well-known plant and bears off-white pleasant-smelling fruit which are bigger than peas. The fruit have a fatty pulp which helps cure leprosy, freckles, dandruff and scars as well as warts, toothaches, scabies and nose bleeds. The Turpentine Tree grows in mountains and bears green fruit which cures scabies and chicken pox. It can be used as an aphrodisiac as well as for the treatment of paralysis and spider bites.

The Egyptian Thorn, on the upper right of the folio, has several branches which bear green leaves and red fruit. The Ben Tree below consists of three green bushes whereas the Turpentine Tree, on the lower right, is a single plant with red berries. It is clear that the paintings are not meant to be scientific illustrations of the text and follow the traditional representation of trees in illustrated manuscripts.

ام عيلان شجرة من عصاة
البادية كثيرة الشوك قال الشيخ
الريسر اصوله يسمى بنك اذا خبز به يطيب
داخلة البدن ويقطع رايحه النوره . و
صممه المشهور المسمى بصنع المر ويستخدم
في البحر وغيره من اعمال النفاثين
وفي البادية للحجاج منها منافع كثير
يستريحون في ظلها وتوقدون من
من حطبها . وان كانت غير مثمرة



كان شجرة معروفة ولها
ثمرتها كبر من الحمص بل الى
الساكن طيبا رائحة وله لب دهني
قال الشيخ الريسر انه ينفع من البرش
والكلف والبهق واناار القروح وينفع

مرثا ليل في المراهم ولبنيجه من وجع الاسنان مضغته وقال غيره ينفع من الجرب ويقطع الرعاف

بطم شجرة معروفة جبلية
ثمرتها حبة الخضراء قال الشيخ
الريسر شربها يجلو الجرب والقواحي
وقال غيره ينفع من الباء سيما رطباً
وقال الشيخ الريسر دهناً نافعاً للفلج
واللقوة وأنه يذهب بثور الطعام
وصمغها وثمرتها بالشراب ينفع
من نهر الريلاء ولذغ البعرب



بنمى

Height: 32.7 cm. (12 ⁷/₈ in.)Width: 22.4 cm. (8 ¹³/₁₆ in.)

57.13v

The superb animal illustrated in this folio represents "the wild ox." The text states that its large horns possess many branches; every year the animal casts its horns which are replaced by those with more branches. While the new horns are growing, the creature hides as it has no defense. The wild ox is attracted to music and is not cautious about arrows because of the pleasure it derives from their sounds.

When the animal is sick, it cures itself by eating snakes, dragging them out of their holes. To counteract the poison, the wild ox eats crabs and then drinks water.

The horns, blood and meat of the wild ox have medical and protective properties. If the horns are carried or hung outside a house, beasts of prey run away; if the house is fumigated with the horns, snakes keep out; and if the horn is placed over women in labor, delivery is hastened. The horns also ease toothaches and can be used as ointment to heal cracked limbs of animals. The blood of the wild ox is an antidote for poison and the meat helps to treat dysentery. It is said that there is a bone in its heart which, if pressed on a person with a headache, relieves the pain.

This remarkable creature is depicted running to the right while turning its head back. The dark gray body is covered with silver spots and two magnificent silver horns grow from its head. The asymmetrical placement of the animal with its horns and hoofs transgressing the frame accentuates its movement and gives the impression of great speed.

ولادتها فأنها تضع، ويحرق الخشب البلوط ويحرق رما ديدم البقر ويطلق به شعر من لا شعر على راسه شهرا متواليا فالشعر
ينبت عليه **بقرة الوحش** يقال إنه ينبت كل سنة على قرنه شعبة وله قرن عظيم ذو شعب، وترغم بعضهم أن
قرنه كل سنة يسقط وينبت مكانه قرن جديد مع زيادة شعبة وإذا نادى وقت سقوط قرنه يمشي إلى موضع لا
يصل إليه أحد ولذلك يقال حيث يلقي الإبل قرونها ويجنب عن كل شيء حتى ينبت قرونها لأنه يعلم أن كل
سلاح معه وإذا اتت عليه سنان يبدا باستقاطها سقاط القرون، وقرنه مصمت بخلاف قرن سائر الحيوان
فإنها مجوفة، وأداسع الغناء وصوت الملاح أصغى إليه ولا يحذر من الشاب لشدة التذاده به، وإذا مرض
ياكل الحيات والأفاعي يروى مرضه ويأكل الأفعى من ذنبها فأدأ وصل إلى أسنانها ريسها، وإذا أكل
الأفعى يطير فبعد ذلك لا يترب الماء للحى لا تترى أذية الأفعى إلى سائر جدد بواسطة الماء بل يطلب السرطان
وأكله حتى يدفع غايته الأفعى ثم تترب الماء عليها، والأفعى إذا أكلت بقرة الوحش أسلحت في جحرها فانيات وتبعها
بالشم فإذا أصاب جحرها جعل فمه على الجحر ويجذبها بنفسه ويقطعها، وذكر أن بقرة أرغوب وتبعها قرنان
وكلاب وهما ربة منهم بعدو شديد فرأت في طريقها حية فوقفت وقطعها ثم شرعت في الهدو.



وأما خواص أجزائه، فإن نحره أن اطعم صاحب الفالج ينفعه نفعاً كثيراً، ومن استحب برقرنه شعبة يهرب عنه
الشیاع، وتوعلو على باب بيت لا يقرنه الشیاع ولا تنقله، ولو دخل البيت به يهرب عنه الحيات، وقرنه تحرق

Height: 32.7 cm. (12 $\frac{7}{8}$ in.)
Width: 22.4 cm. (8 $\frac{13}{16}$ in.)
54.88v

According to al-Kazwini the head of the giraffe is like that of a camel, its horns like that of a cow and its skin like that of a tiger. Its legs resemble those of a camel and its hoofs are like those of an ox. The neck and forelegs are very long while the hindlegs are short. It is said that the giraffe derives from an Abyssinian camel, a hyena and a wild cow; if a hyena mates with a camel and produces a male offspring which in turn mates with a gazelle, the result will be a giraffe. The author comments that this is quite possible since in the south, near the Equator, different species of animals gather around the water holes during the summer months and a hybrid like a giraffe can be produced. He goes on to say that this animal is a wonderful creature, well known for its beauty and strange-looking young.

The giraffe illustrated here is indeed a wonderful and strange-looking creature: it has a spotted body, a tall neck, the head of a camel and two rather large horns; its forelegs are considerably longer than its hindlegs, a peculiarity noted by the author.



Height: 32.7 cm. (12 $\frac{3}{4}$ in.)

Width: 22.4 cm. (8 $\frac{13}{16}$ in.)

54.95r

The elephant is a likeable and good-humored animal. Although it is one of the biggest and bulkiest creatures, it is more agile and elegant than any other. Al-Kazwini states that since the elephant's neck is so short, God gave it a long trunk which serves the function of a hand in man. The animal uses its trunk to feed and defend itself. The elephant has two ears which are like "shields"; they flap and drive the flies and bugs away from its constantly open mouth. The animal also has two huge teeth, or tusks, each weighing 200 or 300 *man* (about 90 to 180 kilos or 200 to 400 pounds). According to the author, this creature has no joints except at the shoulders, thighs and ankles.

The text describes the characteristics and habits of the elephant as well as the medical uses of the different parts of its body. The animal participates in battles, moving like "a castle" with men sitting on its back. Its trunk can hold a sword and use it successfully against the enemy, overcoming 5,000 horsemen. Among its many qualities is the ability to be trained and to obey commands. The elephant is also known to breed intense hatred and never forgets ill treatment. The tusk makes good ointment against freckles and heals wounds while other parts of its body can cure epilepsy, dropsy, leprosy, tuberculosis, high fever and tumors. Even its manure appears to have medical properties and is used against abdominal pains and unwanted pregnancies.

This unique animal is represented on the lower portion of the page with an embroidered cloth on its back. Its pointed tusks, long curving trunk, large ears and heavy proportions are depicted with great accuracy.

حتى يمضي زمان بزمنه الهند ولا يكاد يكون على علاوة الرمح كذا فخل الرمح رايحه الى السباع * وأذا مضى
الهند يأكل اللحم الكلب يزول مرضه وجب الاصوات الحسنه يصنع اليها * ويتولد من الهند والذب حيوان
عجيب الشكل يقال له كوشال * وأما خواص جرائه * مرارته يخلط بالهسل والملح ويجعل على الجملبه التي
يسبل دمها يقطع * تحسه من داوم على اكله يورثه حدة الذهن وقوة البدن * دمه ينفع من وجع المفاصل
طلاء * ومن سقى منه يغلب عليه البلاءة * برثته يترك في موضع يهرب الفار منه **فيل** حيوان
عجيب ظريف نبيل من اعظم الحيوانات واضخمها ربما كان نابة ثلثمائة من وهو مع ذلك ابلج واظرف
من كل خفيف الجسم رشيق * والله تعالى في خلقه صنع عجيب فلما كانت رقبته قصيرة حلولة خروطها طول
يقوم مقام يدا الانسان يرفع الماء والحلف الى فيه ويدور على جميع بدنه كيد الانسان ويضرب بها * وله
اذنان كل واحد كثر من مخركتان دائما يدفع بهما الذباب والبق عن فيه لان فيه منقوش دائما * فلو دخل من
الذباب او البق في فيه او اذنه هلك وله نابان عظيمان كل واحد ما يتأمن وربما يكون ثلثمائة * وليس له من
المفاصل الا الكتف والخذ والكعب * ولا يظهر فيه شقوق الضراب الا بعد خسر سين وتضع لسبع سنين
ولها مستوى الاعضاء والاسنان * والفيلا يصادى الحية اذا راحا فتنحها تحت رجله * والحية يبلع ولده



Height: 32.7 cm. (12 $\frac{3}{4}$ in.)

Width: 22.4 cm. (8 $\frac{13}{16}$ in.)

54.1121

Al-Kazwini writes that in Tibet there is an animal called the *sanaja*. Its description is beyond credulity, unless one has seen it. It is the largest of all land animals and establishes a home approximately a *farsakh* wide (about three miles). Any animal who looks upon it drops dead but if the *sanaja*'s own sight falls upon another animal, it too perishes. Since the animals of that country know this, they approach the *sanaja* with closed eyes; when the *sanaja* sees them, it dies, providing the animals with food for a long time.

This fantastic animal is represented as a four-legged creature with a long tail, thin neck and large head. The body is composed of strangely fitted curving parts, one of which extends from the chest. The golden animal has silvery spots and gives the impression of possessing great ferocity with its flowing white beard, intense red eyes, large open mouth and sharp claws. The posture of the *sanaja* increases its terrifying impact by suggesting that it is about to leap upon a prey.



Tall Beaker

Glass, enameled and gilded
 Syria, late 13th century

Height: 29.5 cm. (11 $\frac{5}{8}$ in.)

Diameter: 17.2 cm. (6 $\frac{13}{16}$ in.)

48.14

The honey-colored fluted beaker with a heavy splayed foot is one of the largest drinking vessels to survive from the Mamluk period. Characteristic of an early group of enameled glass attributed to Damascus, the piece is sparsely decorated with small motifs outlined in red. The design is rendered in red, white, yellow, green and blue enamels, and is gilded.

The flaring rim shows a sketchily drawn braid above a frieze composed of blossoms. The body is divided into two horizontal bands adorned with three alternating medallions. Each of the medallions represents a polo player on a galloping horse. The lively depiction of the figures recalls the horsemen on enameled polychrome pottery which was executed about a century earlier.

The bands are further enhanced by a series of thin lines, floral arabesques and scrolls. Arabesque cartouches and flying birds appear in the zones between them.

Beakers with this shape are commonly found among the glass vessels of the period, although the large size of the Freer example is quite unusual. Its closest counterpart is a vessel in the Bayerische Nationalmuseum, Munich, which is decorated in a similar manner showing medallions with riders in the lower band on the body.³³

Drinking figures holding beakers are frequently encountered in Islamic pottery, metalwork and paintings (nos. 28, 30, 47, and 49). The polo game was also a popular theme. Its most outstanding representation was seen on the large Ayyubid basin made for Sultan Najm al-Din (no. 27).





Footed Bowl with Cover
Glass, enameled and gilded
Syria, second quarter of the 14th
century

Height: 37.1 cm. (12¼ in.)
Diameter: 21.0 cm. (8¼ in.)
58.16

This remarkably well-preserved footed bowl with a domed lid is one of the masterpieces of Mamluk art. There is only one other example whose cover has been preserved³⁴ although individual lids and footed bowls are not uncommon among Syrian glassware.³⁵

The lid, which fits snugly into the rim of the bowl, has a knob conceived as two superimposed globes. The domical portion contains a frieze of six animals broken by three medallions, each of which depict a hawk attacking a bird. The animals run clockwise and represent a chase between a pair of real or imaginary creatures such as a wolf and hare, lion and stag, winged griffin and sphinx.

A similar composition appears in the upper portion of the bowl. In this zone, winged unicorns, sphinxes, wolves and stags chase one another; they are divided into pairs by three large medallions, each of which represents a fabulous phoenix against a turquoise field. The underside of the bowl contains six overlapping roundels, alternately decorated with a single lotus blossom or a floral composition consisting of lotuses and rosettes.

Arabesques fill the bands encircling the medallions and the horizontal panels as well as the backgrounds of the units.

The high splayed foot, attached to the bowl with a thick ring, contains three medallions which repeat the theme of a hawk attacking a bird that appeared on the lid. Placed between the medallions are lotus blossoms and rosettes.

The abundant use of gold and brilliant polychrome enamels including turquoise is highly unusual as is the predominance of animal combats.

The combination of Near Eastern motifs (such as the arabesques and animals) with those associated with the Far East (particularly the phoenix and lotus) is typical of Mamluk art which incorporated the local themes with those brought in by the Mongols.





73
Deep Bowl
Glass, enameled and gilded
Made for a Rasulid Sultan of Yemen
Syria, second quarter of the 14th
century

Height: 21.0 cm. (8¼ in.)
Diameter: 35.0 cm. (13¾ in.)
33.13

This large unique bowl with a rounded base was originally placed on a high glass stand, enameled and gilded like the piece itself.³⁶ The polychrome enamels are applied to both the exterior and interior of the object which is an unusual feature.

The upper portion, painted on the outside, reveals a wide zone in which eight fantastic animals, placed against a floral scroll, alternate with the same number of medallions. Among the four-legged winged creatures encircling the bowl in a clockwise direction there are two griffins, two sphinxes, a lion and three unicorns. Each medallion contains a rosette composed of five red petals, identified as the blazon of the Rasulid Sultans of Yemen. Two thin bands with loosely drawn arabesques appear above and below this portion.

The tapering lower part of the bowl is enameled on the inner side and reveals three concentric zones filled with arabesques. The central zone is interrupted by eight medallions which contain lotus blossoms while the innermost possesses an inscription written in *thuluth* script. The inscription reads:

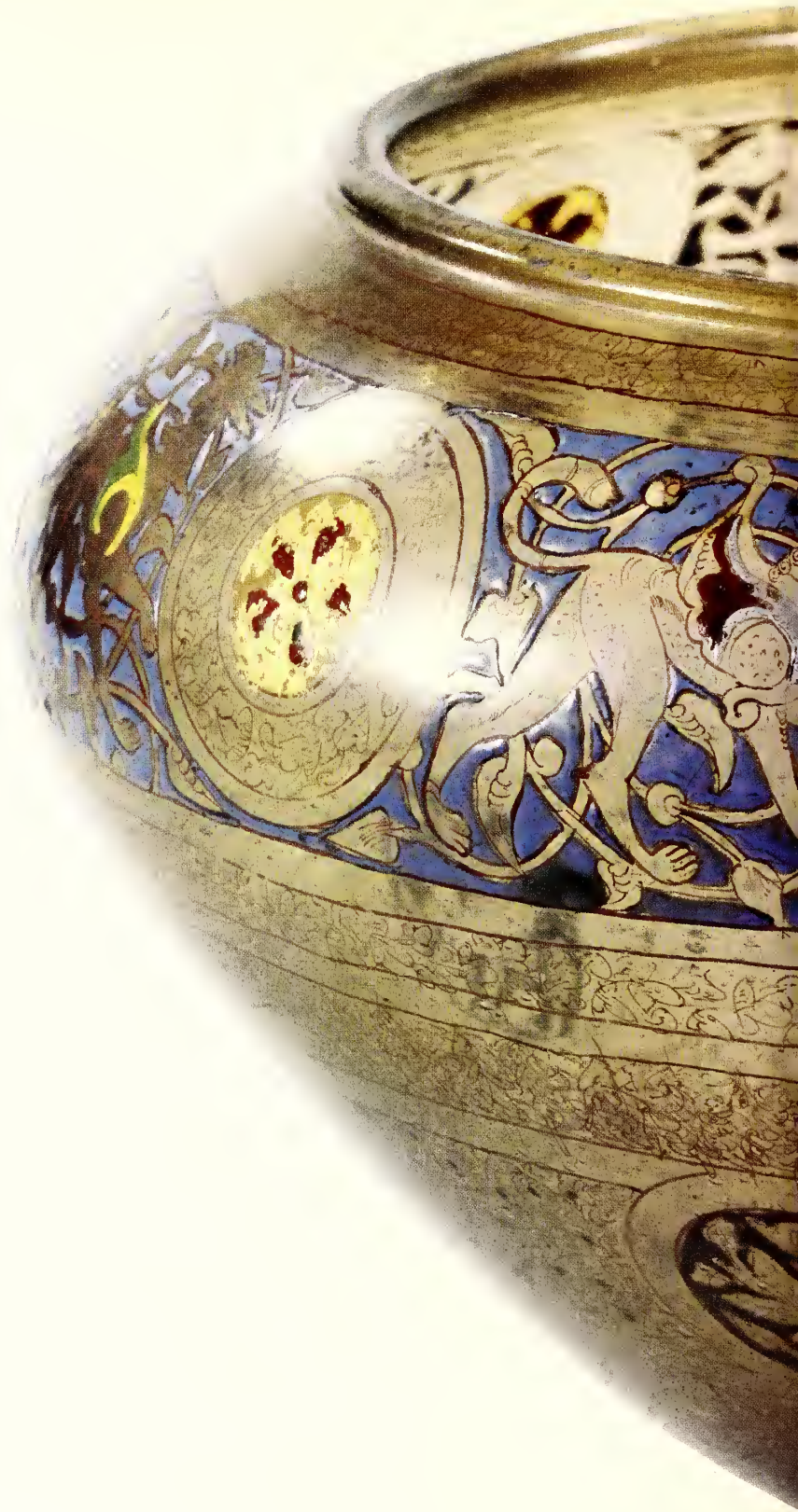
عز لمولانا السلطان الملك العالم العادل المجاهد
المرباط المتأغر

*Glory to our master, the sultan, the lord,
the learned, the just, the defender (of the
faith), the warrior (of the frontiers), the
warden of the marches.*

Although the inscription lacks the personal name of the ruler, its wording is characteristic of that found on other vessels made for the Rasulid sultans.

On the base of the bowl there is a phoenix in flight, resembling the one seen on the previous example (no. 72).

The monumental size of the piece and its exquisite decoration justify the high demand for the works of Syrian artists not only in the Islamic lands but also in the West.





Height: 21.0 cm. (8¼ in.)

Diameter: 35.0 cm. (13¾ in.)

33.13

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The upper portion, painted on the outside, reveals a wide zone in which eight fantastic animals, placed against a floral scroll, alternate with the same number of medallions. Among the four-legged winged creatures encircling the bowl in a clock wise direction there are two griffins, two sphinxes, a lion and three unicorns. Each medallion contains a rosette composed of five red petals, identified as the blazon of the Rasulid Sultans of Yemen. Two thin bands with loosely drawn arabesques appear above and below this portion.

The tapering lower part of the bowl is enameled on the inner side and reveals three concentric zones filled with arabesques. The central zone is interrupted by eight medallions which contain lotus blossoms while the innermost possesses an inscription written in *thuluth* script. The inscription reads:

عن مولانا السلطان الملك العالم العادل المجاهد
المربط المشاهر

*Glory to our master, the sultan, the lord,
the learned, the just, the defender (of the
faith), the warrior (of the frontiers), the
warden of the marches.*

Although the inscription lacks the personal name of the ruler, its wording is characteristic of that found on other vessels made for the Rasulid sultans.

On the base of the bowl there is a phoenix in flight, resembling the one seen on the previous example (no. 72).

The monumental size of the piece and its exquisite decoration justify the high demand for the works of Syrian artists not only in the Islamic lands but also in the West.



Height: 49.7 cm. (19 $\frac{9}{16}$ in.)Diameter: 24.8 cm. (9 $\frac{3}{4}$ in.)

34.20

This tall bottle was also commissioned by a Rasulid Sultan of Yemen whose blazons appear on the piece. The slightly grayish vessel has a tall tapering neck decorated with a thick ring and ten bands of varying widths that are filled with scrolls, arabesques and blossoms. On the shoulder is a frieze in which three winged creatures alternate with the same number of roundels containing the five-petaled rosette of the Rasulids. The widest portion of the body shows large inscriptions interrupted by three medallions which also represent the Rasulid blazon. The underside of the body and the splayed foot are unadorned.

The inscription, written in *thuluth* script, gives the title of a sultan:

عز لمولانا السلطان الملك المجاهد العالم العادل

Glory to our master, the sultan, al-Malik al-Mujahid, the wise, the just.

The title "al-Malik al-Mujahid" refers to the fifth Rasulid ruler, Saif al-Din Ali (1322–63).³⁷

The mythological animals on the shoulder, the blazons and the script are very similar to those seen in the previous example (no. 73). The shape of this bottle with a tall neck and squat body widening toward the base and high foot was very popular during the 14th century with numerous examples executed in varying sizes.





75
Vase with Four Handles
Glass, enameled and gilded
Made for a Rasulid Sultan of Yemen
Syria, late 14th century

Height: 36.2 cm. (14 $\frac{1}{4}$ in.)
Diameter: 23.4 cm. (9 $\frac{3}{16}$ in.)

34.19

Similar to the previous two vessels (nos. 73 and 74) this piece was also made for the Rasulids of Yemen as indicated by the red rosettes which appear on the neck. In contrast to the other examples of Mamluk glass, the vase is predominantly decorated in gold and blue with red and white used sparingly.

The high straight neck has a band of loosely drawn arabesques intersected by four red rosettes and the trailed decorations of the two larger handles. The shoulder reveals a series of similar bands which also encircle the large and small handles, forming four spade-shaped leaves extending down to the body. Below the points of these leaves there are irregularly drawn rectangles decorated with roundels and crescents. Between them are four large medallions, each representing a predatory animal, possibly a lion, attacking a gazelle.

Two-handled vases are commonly seen in 14th-century enameled glass-ware but examples with four handles are quite rare.

This piece is said to have been found in China. The Rasulids, who ruled the area from the Hijaz to Hadramut, had international significance within the Islamic world. They controlled the sea routes to Africa and Far East, and commercial embassies from India, China and Abyssinia are recorded to have visited Yemen. The vase could have been given to the Chinese emissaries or sent to China as a gift from the sultans. The Rasulids also had close political and cultural ties with the Mamluks, as indicated by the existence of metal work and glass made in Egypt and Syria for the courts of Yemen.

76
Mosque Lamp
Glass, enameled and gilded
Made for Sultan al-Malik al-Nasr Hasan
Egypt, ca. 1360

Height: 33.6 cm. (13¼ in.)
Diameter: 30.5 cm. (12 in.)
57.19



The shape of this object is typical of the glass mosque lamps executed in the Mamluk period. The upper portion of the high flaring neck is decorated with a wide band of inscriptions, interrupted by three medallions that contain the epigraphic blazon of Sultan Hasan (1347–51 and 1354–61). An arabesque panel, adorned with six lotus blossoms encased in roundels, appears on the lower section of the neck.

Six handles, used for suspension, are applied to the upper part of the body which is covered with plaited *kufic* script, combining geometric and floral elements. The *kufic* inscription is purely decorative and reveals a different motif in each of the units between the handles. The underside of the lamp has three medallions with the epigraphic blazon of Sultan Hasan. Placed between them are polylobed rosettes which contain large lotus blossoms.

The *thuluth* inscription on the neck is from the Koran, Sura XXIV, verse 35. Glass lamps made for madrasas and mosques are traditionally decorated with this passage which is from the chapter entitled *The Light* and pertains to the manifestation of divine light in Islam:

الله نور السموات والارض مثل نوره كشكوة
فيها مصباح المصباح

God is the light of the heavens and the earth; a likeness of His light is like a niche in which is a lamp; the lamp (is in a glass and the glass is as it were a shining star ...)

The three medallions on the neck bear a *naskhi* inscription which reads:

عز لمولانا السلطان
Glory to our master, the sultan

The phrase is completed by the inscriptions in the three medallions which appear on the lower part of the body:

الملك الناصر حسن

al-Malik al-Nasr Hasan.

This form of a blazon which utilizes inscriptions is referred to as the “inscribed shield” and was used on the objects commissioned by several of the Mamluk sultans.³⁹

The largest group of glass vessels executed in this period are lamps, the majority of which were made for the famous madrasa of Sultan Hasan in Cairo, built in 1356–63.⁴⁰



Mosque Lamp
Glass, enameled and gilded
Made for Sultan al-Malik al-Nasr Hasan
Egypt, ca. 1360

Height: 33.6 cm. (13 1/4 in.)
*Diameter: 30.5 cm. (12 in.)

57-19



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الله نور السموت والارض مثل نوره كمنكو
ه فيها مصباح المصباح

God is the light of the heavens and the earth; a likeness of His light is like a niche in which is a lamp; the lamp (is in a glass and the glass is as it were a shining star...)

The three medallions on the neck bear a *naskhi* inscription which reads:

عز مولانا السلطان
Glory to our master, the sultan

The phrase is completed by the inscriptions in the three medallions which appear on the lower part of the body:

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77
Small Bottle
Glass, enameled and gilded
Syria, late 14th century

Height: 8.4 cm. ($3\frac{5}{16}$ in.)
Width: 12.0 cm. ($4\frac{3}{4}$ in.)
Depth: 4.4 cm. ($1\frac{3}{4}$ in.)
29.8





The exquisitely decorated small bottle is painted in thickly applied polychrome enamels which have retained their brilliance. A thin band of arabesques appears on the neck while a gold floral scroll with jewel-like blue blossoms encircles the shoulders and sides. The front and back panels represent a group of four figures with musical instruments. The musicians are seated in pairs and face the center. They are attired in colorful garments which have contrasting belts and collars. On their heads are either thickly folded turbans or hats with wide brims, a combination which also appears in Mamluk miniatures (see for instance, no. 45).

In one of the panels, the men are depicted playing a lute, lyre, drum and flute while on the reverse the quartet consists of a psalter (?), small lute, tambourine and a string instrument which is plucked.

The representation of musicians dates back to ancient Near Eastern art and continues to be a popular theme throughout the Islamic period. Figures playing drums, strings, wind and percussion instruments are frequently encountered in ceramics, metalwork and miniatures as well as on woodwork, ivories, and architectural decoration (nos. 11, 27, 28, 45, 47, 55 and 62). Some of the themes have astrological significance whereas others reflect the entertainment of the princes, often accompanied by dancers and drinking figures.

The variety of musicians depicted on the bottle is extraordinary since each of the eight figures plays a different instrument.

Brass, inlaid with silver and gold
Made for an anonymous Mamluk Amir
Egypt, mid-14th century

Height: 3.2 cm. (1¼ in.)

Diameter: 28.9 cm. (11⅝ in.)

53.89

The plate with wide flattened rim and raised central medallion is decorated with concentric bands containing inscriptions, floral motifs and animals. The pearl band on the rim frames 14 four-legged animals (elephants, sphinxes, unicorns, wolves, deer, cheetahs, lions, tigers, rabbits, etc.), which alternate with the same number of flying ducks.

The wide band of *thuluth* inscriptions around the center is broken by four ogival medallions which are decorated with large lotus blossoms or three pairs of flying ducks. Pendants of the medallions and arabesque cartouches are placed in the neutral zones which encircle both sides of the inscription.

The central portion shows a chevron pattern around the raised medallion which is divided into eight units by an intertwining ribbon. These units are alternately adorned with lotus blossoms and two pairs of flying ducks, repeating the motifs employed in the outer band. In the center is another *thuluth* inscription, revolving around a six-petaled rosette.

The plate was originally inlaid with silver and gold; most of the latter is now lost. The inscription in the center reads:

المقر العالي المالكي العالي العادل المالكي
الناصرى

His exalted excellency, the lord, the high, the just, (the officer) of al-Malik al-Nasr.

The longer message on the outer band is rendered as:

المقر العالي المالكي العالمى العادل
الغازى المجاهد (ى) المرباطى المشاغر (ى)
الكفيلى المالكي الملكى الناصرى

His exalted excellency, the lord, the learned, the efficient, the just, the vanquisher, the defender (of the faith), the warrior (of the frontiers), the warden of the marches, the viceroy, the lord, (the officer) of al-Malik al-Nasr.

Since several Mamluk sultans had adopted the honorary title of “al-Malik al-Nasr,” it is difficult to identify the specific ruler mentioned in the inscriptions. Two of the rulers who used this title were Muhammad ibn Kalaun (1294–95, 1299–1309 and 1309–40) and his son, Hasan (1347–51 and 1354–61). The style of writing, the use of lotus blossoms and flying ducks, and the character of decoration are similar to the metal objects executed in Cairo after the middle of the 14th century. Therefore, it is possible that the plate was made for one of the officers of Sultan Hasan who was a great patron of the arts and commissioned a number of metal⁴¹ and glass objects (see no. 76). His officers also supported the arts and several objects dedicated to them have been published⁴² (see also no. 52).





Brass, inlaid with silver and gold
Made for an anonymous Mamluk Amir
Egypt, mid-14th century

Height: 3.2 cm. (1¼ in.)
Diameter: 28.9 cm. (11⅝ in.)
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The plate was originally inlaid with silver and gold; most of the latter is now lost. The inscription in the center reads:

المقر العالي المالكي العالي العادل المالكي
الناصرى

His exalted excellency, the lord, the high, the just, (the officer) of al-Malik al-Nair.

The longer message on the outer band is rendered as:

المقر العالي المالكي العالي العادل
الغازى المجاهد (ى) المراتلى المشاغر (ى)
الكفيل المالكي الملكى الناصرى

His exalted excellency, the lord, the learned, the efficient, the just, the vanquisher, the defender (of the faith), the warrior (of the frontiers), the warden of the marches, the viceroy, the lord, (the officer) of al-Malik al-Nair.

Since several Mamluk sultans had adopted the honorary title of "al-Malik al-Nasr," it is difficult to identify the specific ruler mentioned in the inscriptions. Two of the rulers who used this title were Muhammad ibn Kalaun (1294–95, 1299–1309 and 1309–40) and his son, Hasan (1347–51 and 1354–61). The style of writing, the use of lotus blossoms and flying ducks, and the character of decoration are similar to the metal objects executed in Cairo after the middle of the 14th century. Therefore, it is possible that the plate was made for one of the officers of Sultan Hasan who was a great patron of the arts and commissioned a number of metal⁴¹ and glass objects (see no. 76). His officers also supported the arts and several objects dedicated to them have been published⁴² (see also no. 52).



Bucket
Bronze, inlaid with silver;
inside partially gilded
Veneto-Islamic, mid-16th century

Height without handle: 16.9 cm.

(6 $\frac{11}{16}$ in.)
Height with handle: 32.2 cm. (12 $\frac{11}{16}$ in.)

Diameter: 30.2 cm. (11 $\frac{7}{8}$ in.)

45.14

This object belongs to a distinct type of metalwork which was executed in Venice either by Islamic craftsmen who emigrated there or by local artisans who imitated the inlaid technique of the Near East.

There exist a considerable number of these pieces, 30 of which bear the signatures of Muslim artists.⁴³ The most prolific of these artists seems to be Mahmud al-Kurdi who was responsible for close to 20 ewers, bowls, boxes, plates, buckets and hand warmers.⁴⁴ Dated examples are extremely rare and only one piece with the date 1505 has been published⁴⁵ while the rest are assigned to the first half of the 16th century.

It is generally believed that in the 16th century, Venice began to employ Islamic artists due to the great demand for Near Eastern metalwork in the West. In time, local artists also learned to execute inlaid metal objects. A plate in the Museum of Art and Industry, Vienna, made in 1550 by Nicolo Rugina Greco of Korfu, suggests that by the middle of the 16th century Venice was producing highly successful competitive pieces of inlaid metalwork.⁴⁶

The term "Veneto-Islamic" is applied to this group of metal objects which are decorated with a fine overall arabesque and inlaid with silver. The earlier examples reveal well-defined large units which contrast with the dense background and the motifs generally derive from floral elements. Although the latter pieces retain the technical finesse, the decoration becomes dry and mechanical in appearance.

The Freer bucket belongs to the earlier group with its elaborate interlacing bands and cartouches accentuated by the finely executed floral arabesque which appears in the background. The shape is typically Islamic with prototypes going back to the Umayyad period.⁴⁷

A meander pattern appears on the upper surface of the projecting rim which shows an arabesque scroll on its side. The body is divided into three horizontal parts with two narrow bands encircling a wide central portion. The same profusion of arabesques which appears on the exterior walls is also seen on the rounded base; here the motifs radiate from a ten-pointed star.

The interior, which is partially

gilded, shows a band at the rim and a medallion at the bottom, both of which are decorated with large scale arabesques. The handle is movable and attached to the piece by two pins which fit into the holes of the brackets.

The Freer bucket exemplifies a rare group of Veneto-Islamic objects which combines engraving and inlaying. The gilding used in the interior and on the handle is rather unusual.

Specific models for this type of

decoration have not yet been established. Similar overall arabesques can be found on 15th- and 16th-century Iranian pieces⁴⁸ as well as on Egyptian and Syrian metalwork. However, closest examples are found among the Egyptian pieces. A plate, dated 1516, and a lighting fixture, dated 1503, both made for Sultan Kansu al-Ghawri, reveal an almost identical style of decoration together with several other late Mamluk objects.⁴⁹





Detail of base

Hand Warmer
Brass, pierced and inlaid with silver
Syria, 16th century

Diameter: 12.5 cm. (4 $\frac{15}{16}$ in.)
39.58



The globular chafing ball, or hand warmer, is made up of two hemispheres which lock together by two pins fitted into grooves. Each hemisphere is decorated in an identical manner and divided into four concentric units: the medallion on the top and the wide band on the sides are adorned with braided strapwork; the two narrow strips, which appear on either side of the wider band, reveal scrolls composed of intertwining branches and trilobed leaves. The strapwork resembles a highly ornate plaited *kufic* inscription with rounded forms below elongated and braided verticals. Thin ribbons outline the four units which are pierced with minute holes.

One of the hemispheres possesses a cup-shaped fire pot, attached to circular discs. Each disc has a pair of pivots placed in the opposite direction of those on the previous disc, thus enabling the fire pot to remain in an upright position. Through the employment of gimbals the hot coals are prevented from falling out of the pot when the hand warmer is moved or turned.

Similar globular objects with gimbals, often made of silver, were executed in China as early as the T'ang period. The Chinese examples are slightly smaller and suspended from chains; they were used as incense burners.⁵⁰ Identical objects, used as hand warmers, are also found in the West with earliest examples dating from the 13th or 14th centuries.⁵¹

It is thought that Islamic examples originated in Syria in the 13th century. There exist a number of these globular hand warmers, one of which, owned by the British Museum, London, bears the name of the Mamluk official Badr al-Din Baysari; the piece was made in Syria between 1264 and 1279.⁵² The same museum also has a 16th-century hand warmer which is remarkably similar to the Freer example.⁵³ These late Mamluk pieces were executed either in Egypt or Syria and may have served the double purpose of hand warmers as well as incense burners.

In the 16th century, when Venice took over the technique of inlaying metalwork, it also started producing similar objects. The hand warmers were in frequent use in Western churches and courts, and the Islamic pieces were most likely made for export to European countries with colder climates.

1. L. A. Mayer, *Saracenic Heraldry*, Oxford, 1933; and *New Material for Mamluk Heraldry*, Jerusalem, 1937.
2. K. A. C. Creswell, *Muslim Architecture of Egypt*, vol. II, Oxford, 1959.
3. There exist five Mamluk copies of the *Makamat*, three of which are in London, British Museum: Or. 9718 (dated between 1271 and 1310), Add. 22114 (early 14th century), and Add. 7293 (dated 1323). The remaining manuscripts are in Vienna, Nationalbibliothek, A. F. 9 (dated 1334); and Oxford, Bodleian Library, Marsh 458 (dated 1337). The latest copy is from the 17th century: Manchester, John Rylands Library, Arab. 680.
4. For Jalairid and Timurid paintings see Ivan Stchoukine, *Les Peintures des Manuscrits Timurides*, Paris, 1954.
5. The best sources for Mamluk glass are Lamm, *Mittelalterliche Gläser*; and Gaston Wiet, *Lampes et Bouteilles en Verre Émaille*, Cairo, 1929.
6. The most remarkable piece is the so-called Baptistère de Saint Louis with almost a portrait quality seen in the depiction of figures. The references to this basin are given in no. 27. Studies of individual Mamluk pieces are published in D. S. Rice in "Studies in Islamic Metalwork: I–V," *Bulletin of the School of African and Oriental Studies*, vols. XIV–XVII, (1952–55); and "Two Unusual Mamluk Metalworks," *Ibid.*, vol. XX (1957), pp. 487–500. Also Peter Ruthven, "Two Metal Works of the Mamluk Period," *Ars Islamica*, vol. I (1934), pp. 230–234; Wiet, "Inscriptions Mobilieres," pp. 243–269; Grabar, "Two Pieces of Islamic Metalwork," pp. 360–367; A. S. Melikian Chirvani, "Cuives Inédits de l'Époque de Qaitbay," *Kunst des Orients*, vol. VI (1962), pp. 100–133; James W. Allan, "Later Mamluk Metalwork," *Oriental Art*, vol. XV, no. 1 (Spring, 1969), pp. 38–43. The collection in Cairo is published in Gaston Wiet, *Objets en Cuirres*, Cairo, 1932.
7. Armand Abel, *Gaibi et les Grands Faïenciers Égyptiens de l'Époque Mamlouke*, Cairo, 1930. M. A. Marzouk, "Three Signed Specimens of Mamluk Pottery from Alexandria," *Ars Orientalis*, vol. II (1957), pp. 497–500. Arthur Lane, *Later Islamic Pottery*, London, 1971. For Fustat finds see articles by Scanlon.
8. One set of covers, formerly in the Henri Vever Collection, Paris, lacks the text, similar to the Freer example.
9. Those with the dedication are in the Walters Art Gallery, Baltimore, MS. 561, *juz* II; and in the Library of Congress, Washington, D. C., *juz* IX. The other two sections are owned by the Chester Beatty Library, Dublin, MS. 1478, *juz* XXII, and MS. 1495, *juz* XXVIII. For the Baltimore cover see Walters Art Gallery, *The History of Bookbinding*, no. 61, pp. 28–29 and pl. XVIII; and Ettinghausen, "Near Eastern Book Covers," p. 123. The Dublin bookbindings are published in Arberry, *The Koran Illuminated*, nos. 90 and 110 on pp. 28 and 34.
10. For the activities and titles of this amir see Mayer, *Saracenic Heraldry*, pp. 91–92.
11. This manuscript is in the National Library, Cairo, MS. 54. Ettinghausen, *Arab Painting*, p. 174.
12. Al-Jazari's work has been fully translated, illustrated and annotated in Donald Hill, *The Book of Knowledge of Ingenious Mechanical Devices*, Dordrecht-Boston, 1974. The author mentions 11 copies of the manuscript, including a 19-century Persian translation. The following Arabic manuscripts should be added to this list: Istanbul, Topkapi Palace Museum, A 3461 (13th century), H414 (15th century) and A 3350 (dated 1458–59); Cairo, Egyptian Library, Riyada 686 (dated 1450).
13. The location of the folio with the colophon is presently unknown. It was first discussed in Mehmet Aga-Oglu, "On a Manuscript by al-Jazari," *Parnassus*, vol. III, no. 7 (November, 1931), pp. 27–28.
14. Rudolf M. Riefstahl, "The Date of Provenance of the *Automata* Miniatures," *Art Bulletin*, vol. IX, no. 2 (June, 1929), pp. 206–215; Eric Schroeder, *Persian Miniatures in the Fogg Museum of Art*, Cambridge, 1942, pp. 21–27.
15. Tulak was the chief military judge of Damascus in 1350 and died in Cairo in 1352. See L. A. Mayer, "Zum Titelblatt der *Automata* Miniaturen," *Orientalistische Literatur Zeitung*, vol. XXXV (1932), pp. 165–166.
16. The 1354 copy of the *Automata* in the Museum of Fine Arts, Boston, shows the outer appearance of this clock. Hill, *The Book of Knowledge*, pl. I.
17. A folio from the 1315 manuscript in the Metropolitan Museum of Art, New York, represents the complete clock. *Ibid.*, frontispiece.
18. For an excellent summary of the work and its translations see C. Brockelmann, "Kalila wa-Dimna," *Encyclopedia of Islam*, vol. II, part 2, pp. 694–698. There are several English editions of the book: William Knatchbull, *Kalila and Dimnah, or the Fables of Bidpai*, Oxford, 1819 (al-Mukaffa's Arabic translation); Ion Keith-Falconer, *Kalilah and Dimnah, or the Fables of Bidpai*, Amsterdam, 1970 (a 6th-century Syriac translation); and A. N. Wollaston, *The Anwar-i Subayli, or the Lights of Canopus, Commonly Known as Kalilah and Dimnah*, London, 1904 (an early 16th-century Persian translation, see note 20 below).
19. Buchthal, "'Hellenistic' Miniatures." This manuscript is in Paris, Bibliothèque Nationale, Arabe 3465, and has about 100 miniatures which are attributed either to Irak or to Syria.
20. This translation is now lost. The oldest extant Persian version, completed around 1145, is by Nasr Allah and dedicated to the Samanid ruler Bahram Shah. There are about 15 illustrated Persian copies of this work executed in the 14th and 15th centuries. Another Persian translation, by Husein Waiz al-Kashifi (d. 1504), titled the *Anwar-i Subaili*, was the source for the Turkish translation made by Ali Çelebi in 1557, called the *Hümayyunname*. Only a few illustrated versions of the former have come to light while three copies of Ali Çelebi's work are known to possess miniatures.

21. See the two articles by Sofie Walzer, "An Illustrated Leaf from a Lost Mamluk Kalilah wa-Dimnah Manuscript," *Ars Orientalis*, vol. II (1957), pp. 503–504; and "The Mamluk Illustrated Manuscripts of Kalila wa-Dimna," in *Aus der Welt der Islamischen Kunst*, pp. 195–206.
22. The manuscript is published in the sales catalogue of Hotel George V, *Art Musulman*, 24 Mars 1975, no. 131, two reproductions in color. The single folio is illustrated on the cover of the sales catalogue of Hotel Drouôt, *Importante Collection de Miniatures Orientales*, 26 Octobre 1973, no. 19.
23. The *Makamat* of Hariri in Vienna, Nationalbibliothek, A. F. 9. See Arnold and Grohmann, *The Islamic Book*, pls. 43–47; and Ettinghausen, *Arab Painting*, pp. 148–151.
24. The original Arabic copy of the cosmology is published in Ferdinand Wüstenfeld, *Zakariya Ben Mubammed Ben Mahmud el-Cazwini's Kosmographie*, Göttingen, 1848, 2 vols. It is also printed in German in Hermann Ethé, *Zakariya Ben Mubammed Ben Mahmud el-Kazwini's Kosmographie*, Leipzig, 1868, vol. I. For the activities of the author and summary of the work, see M. Streck, "al-Kazwini," *Encyclopedia of Islam*, vol. II, part 2, pp. 841–844.
25. Ettinghausen, *Arab Painting*, pp. 138–139.
26. There exist over 50 illustrated Persian copies, the majority of which were executed in the 15th and 16th centuries. Several of the later manuscripts were made in India during the Mughal rule. About eight illustrated Turkish versions, most of which date from the 16th and 17th centuries, are presently known.
27. One of these, dated mid-16th century, was presented to the Ottoman sultan Süleyman the Magnificent, while another with extremely crude illustrations was copied in 1699. Both manuscripts are in Istanbul, Topkapi Palace Museum, H 408 and R 1658. The latest work, belonging to the 18th century, is in Munich, Bayerische Staatsbibliothek, Cod. Arab. 462. See Ettinghausen, *Arab Painting*, p. 181.
28. Sarre and Martin, *Meisterwerken Muhammedanischer Kunst*, vol. I, no. 650, pls. 11 and 12, L. Binyon, J. V. S. Wilkinson and B. Gray, *Persian Miniature Painting*, London, 1933, no. 9 on p. 26 and pls. VI A and B. Friedrich Sarre, *Sammlung F. und M. Sarre: Katalog der Ausstellung im Städtischen Kunstinstitut*, Frankfurt, 1932, no. 295, pl. 6.
29. Richard Ettinghausen dates the manuscript about 1370–80 and attributes it to Irak while Ivan Stchoukine agrees with the provenance and assigns it to Baghdad around the beginning of the 15th century. Ettinghausen, *Arab Painting*, pp. 178–179; Stchoukine, *Les Peintures des Manuscrits Timurides*, p. 37.
30. This manuscript, dated 1388, is the oldest illustrated Persian translation of al-Kazwini's cosmology. It is presently in Paris, Bibliothèque Nationale, Suppl. Pers. 332. Stchoukine, *Les Peintures des Manuscrits Timurides*, pp. 32–33. Basil Gray, *Persian Painting*, Geneva, 1961, pp. 45 and 48.
31. The Leningrad manuscript has 465 miniatures and is attributed to Baghdad. See Stchoukine, *Les Peintures des Manuscrits Timurides*, p. 38; Pope, *A Survey of Persian Art*, vol. IX, pl. 854; Binyon, Wilkinson and Gray, *Persian Miniature Painting*, no. 11 on p. 26 and pls. VII A and B.
32. The Dublin copy is incomplete and has about 190 folios with 108 miniatures. See A. J. Arberry, M. Minovi and E. Blochet, *The Chester Beatty Library: a Catalogue of the Persian Manuscripts and Miniatures*, Dublin, 1959, vol. I, no. 128 on pp. 57–58.
33. Sarre and Martin, *Meisterwerken Muhammedanischer Kunst*, vol. II, pl. 169.
34. This example is owned by the Toledo Museum of Art, Ohio, acc. no. 70.56 A and B; published in "Recent Important Acquisitions," *Journal of Glass Studies*, vol. 13 (1971), no. 34 on pp. 140–141.
35. Lamm, *Mittelalterliche Gläser*, vol. II, pls. 182 : 1, 158, 160, 161, 162 and 189.
36. A reproduction of the bowl placed on its stand appears in *Ibid.*, pl. 179 : 9.
37. For the Mamluk metalwork commissioned by this ruler and bearing his title and name see Wiet, *Objets en Cuivre*, pp. 5, 11, 67, 72, and 161.
38. Aside from glassware, the Rasulids ordered a considerable amount of metalwork from the Mamluks. For two plates in Cairo see *Ibid.*, pp. 70–72 and 103–104, and pls. XLVII and XLVIII; also pp. 5, 9–11, 20, 21, 24, 48, 66–67, 81, 161 and 273 for pieces in other collections.
39. Mayer, *Saracenic Heraldry*, pp. 34–49.
40. Comparable pieces are published in Lamm, *Mittelalterliche Gläser*, vol. II, pls. 190–205. Lamm lists over 50 lamps which are attributed to the madrasa of Sultan Hasan in vol. I, pp. 453–466. For other examples with the epigraphic blazon of this sultan see vol. II, pls. 193 : 10, 202 : 1 and 194 : 1. Thirty-five of Sultan Hasan's lamps are illustrated in Wiet, *Lampes et Bouiteilles en Verre Émaillées*, pls. XXIII–LVIII.
41. For the metal objects dedicated to Sultan Hasan see Wiet, *Objets en Cuivre*, pp. 1–7, 12–14 and 41–42, pls. XII, XXVI and XIII.
42. Mayer, *Saracenic Heraldry*, pp. 134–135 and 170. Wiet, "Inscriptions Mobilères", pp. 247–263, pl. V. Rice, "Studies in Islamic Metal Work : I," pp. 569–570, pl. 8.
43. L. A. Mayer, *Islamic Metalworkers and their Works*, Geneva, 1959, pp. 31–32, 67, 56, 58, 63, 78, 87, 91 and pl. XV.
44. *Ibid.*, pp. 56–58.
45. *Ibid.*, pp. 31–32.
46. Gaston Migeon, *Manuel d'Art Musulmane*, Paris, 1907, vol. II, p. 218 and fig. 181.
47. The earliest dated inlaid bucket is the Bobrinsky kettle made in 1163 by Masud ibn Ahmad, now in the Hermitage Museum, Leningrad. Richard Ettinghausen, "Bobrinsky Kettle: Patron and Style of an Islamic Bronze," *Gazette des Beaux Arts*, vol. XXIV (1943), pp. 193–208. Also Mayer, *Islamic Metalworkers*, pp. 61–62, with full bibliography of the piece.
48. Two vases, dated 1461 and 1511, are published in Pope, *A Survey of Persian Art*, vol. XII, pls. 1376 A and B.
49. Wiet, *Objets en Cuivre*, nos. 239, 3169 and 7593 on pp. 28–29, 76–77, and 131–133; pls. XX–XXI, LVI and LII–I.III.
50. Two examples are published in Bo Gyllensvärd, *Chinese Gold, Silver and Porcelain: the Kempe Collection*, New York, 1971, nos. 44a and 44b on pp. 49 and 77.
51. Charles R. Beard, "Chafing-balls and Hand-warmers," *The Connoisseur*, vol. CV, no. 461 (January, 1940), pp. 17–21 and 27.
52. Mayer, *Saracenic Heraldry*, p. 112. Douglas Barrett, *Islamic Metalwork in the British Museum*, London, 1949, no. 22.
53. Beard, "Chafing-balls," no. VI.

APPENDIX

Names of Artists

Abdallah ibn al-Fadl: nos. 19-25
 Farruk ibn Abd al-Latif: nos. 44-51
 Kasim ibn Ali: no. 26
 Muhammad: no. 38
 Muhammad ibn Ahmad al-Izmiri: no. 52

Names of Owners

Amir Aytmish al-Bajasi: no. 40
 Amir Nasr al-Din Muhammad ibn Tulak: no. 52
 Amir Shihab al-Din: no. 26
 Anonymous Mamluk Amir: no. 78
 Anonymous Rasulid Sultan: nos. 73 and 75
 Sadullah: no. 39
 Sultan al-Malik al-Mujahid Saif al-Din Ali: no. 74
 Sultan al-Malik al-Nasr Hasan: no. 76
 Sultan al-Malik al-Salih Najm al-Din Ayyub: no. 27

Dated Pieces

1224 *Materia Medica* of Dioscorides: nos. 19-25
 1232 Ewer by Kasim ibn Ali: no. 26
 1315 *Automata* of al-Jazari: nos. 44-51
 1354 *Automata* of al-Jazari: no. 52

*Accession No.**Catalogue No.*

04.292 32
 05.257 39
 08.136 33
 08.140 35
 08.148 36
 09.41 38
 09.42 37
 25.6 11
 25.7 30
 29.8 77
 29.68 7
 29.69 7
 29.71 6
 30.55 41
 30.56 42
 30.59 42
 30.60 3
 30.71 46
 30.72 48
 30.73 47
 30.74 44
 30.75 51
 30.76 50
 30.77 49
 32.1 43
 32.19 52
 32.20 25
 32.21 22
 32.22 21
 32.62 5
 33.13 73
 34.19 75
 34.20 74
 36.2 15
 37.6 1
 37.11 4
 38.1 20
 39.58 80
 41.10 28
 41.12 17
 42.5 34
 42.10 45
 42.13 29
 43.2 19
 45.14 79
 45.15 40
 45.16 2
 46.30 16
 47.5 23
 47.8 31
 48.9 43
 48.14 71
 48.25 14
 49.14 13
 52.1 8
 53.89 78
 53.90 12
 53.91 24
 54.1 53
 54.2 54

*Accession No.**Catalogue No.*

54.34 55
 54.36 56
 54.39 57
 54.45 58
 54.46 59
 54.48 60
 54.50 61
 54.51 62
 54.52 63
 54.63 64
 54.71 65
 54.73 66
 54.88 68
 54.95 69
 54.112 70
 55.10 27
 55.22 26
 57.13 67
 57.19 76
 57.23 10
 58.16 72
 66.11 9
 66.26 18







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